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DOMINION BUREAU OF STATISTICS

DEPARTMENT OF TRADE AND COMMERCE, CANADA

# THE CANADA YEAR BOOK 1950

THE OFFICIAL STATISTICAL ANNUAL OF THE RESOURCES,  
HISTORY, INSTITUTIONS, AND SOCIAL AND ECONOMIC  
CONDITIONS OF CANADA

Published by Authority of  
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THE  
CANADA YEAR BOOK  
1930

THE OFFICIAL YEARBOOK OF THE GOVERNMENT OF CANADA  
CONTAINING A SUMMARY OF THE ACTS AND REGULATIONS  
PASSED DURING THE YEAR 1930

PUBLISHED BY THE GOVERNMENT OF CANADA  
OTTAWA, 1931

7047



## PREFACE

Since Confederation, the Canada Year Book has been the annual official statistical record of the development of Canada.

This publication is designed to co-ordinate all essential elements of progress against an analytical background that gives perspective to the chapter material. Outstanding developments are dealt with by means of special articles, each carefully prepared and sponsored by the appropriate Government Department.

When Newfoundland entered Confederation as a new Province on Mar. 31, 1949, the area of Canada was extended overnight by 154,700 square miles and the population was increased by 348,000. The planning and editing of this edition of the Year Book has, in consequence, involved the incorporation of statistical data for Newfoundland. But since latest figures available are mainly from the 1945 Newfoundland Census, and are not in any sense comparable with data for other provinces, the problem has had to be met by the introduction of special sections for Newfoundland in appropriate chapters. For instance: a section on the Constitutional Development of Newfoundland is included in Chapter III—"Constitution and Government"; Population Statistics for Newfoundland are given at the end of Chapter IV—"Population"; Vital Statistics for Newfoundland appear at the end of Chapter VI; the background of Crime and Delinquency in Newfoundland is given in Chapter VIII; the educational system of Newfoundland is reviewed in Chapter IX—"Education and Research"; statistics of the Newfoundland Census of Agriculture, 1945, are given in Chapter XI; and statistics of Newfoundland's fisheries appear in Chapter XIV.

Naturally, such double treatment—first for the older provinces collectively and then for Newfoundland—has required more space than will be necessary after the Canada-wide Census of 1951 is completed, when all ten provinces can be shown together.

In addition to the Newfoundland material, feature articles carried in this edition include: Part II of the Climate of Canada article at pp. 33-70 (Part I is given at pp. 41-62 of the 1948-49 Year Book) consisting of detailed tables showing long-term averages of climatic data for representative stations; the Influence of the Royal Canadian Mounted Police in the Opening Up of Western Canada, pp. 317-331; up-to-date articles on the Iron-Ore Resources of the Quebec-Labrador Region and the Titanium Deposits of Quebec, at pp. 505-513; a summary of the Special Report on the Royal Commission on Prices, at pp. 978-982; and a study of the Distribution of Investments and their Influence on the Capital Market, pp. 1088-1095.

The value of a volume such as this depends, to no small degree, on an index of items, well classified and cross-referenced, to enable information to be located quickly. Such an index is to be found at the end of the book which, with the synopsis of contents at the head of each chapter and the general table of contents at p. vii, will give assistance in this direction. An interpretation of the symbols used in the tables throughout will be found facing p. 1.

The Statistical Summary of the Progress of Canada from 1871 to the latest year, given at pp. xv to xxvii, brings to a focus the advances made in all important branches of economic and social activity over a period of almost 80 years. At the time of going to press changes in the Federal Cabinet were announced and certain new Departments were set up. These matters are, therefore, dealt with in the final Chapters and in Appendix II.

All sections of this edition have been carefully revised by the most competent authorities and include the latest information at the time of going to press.

The present volume has been edited by A. E. Millward, Director, Canada Year Book Division, assisted by Herbert H. Coulson and the Year Book Staff. Charts, graphs and layouts have been made by or under the direction of J. W. Delisle, Senior Draughtsman of the Bureau.

Acknowledgments are hereby tendered to the numerous officials of the Federal and Provincial Governments, and to others who have contributed material. Whenever possible, credit is given to the persons and various services concerned by means of footnotes to the respective sections.

With a view to the improvement of future editions, the Bureau will be glad to hear of any errors that may have escaped notice and to receive suggestions with regard to omissions or to methods of treatment.

HERBERT MARSHALL.

Dominion Statistician.

DOMINION BUREAU OF STATISTICS,

OTTAWA, Apr. 1, 1950.



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# DISTANCES BETWEEN PRINCIPAL POINTS IN CANADA.\*

NOTE.—Generally, the distances given are the shortest by railway.

A knowledge of distances in miles between principal points constitutes very useful information in these days of wide travel, but when an attempt is made to compile such data difficulties are at once encountered. Railway distances are the logical choice, even though the distances are of increasing interest to a vast body of travellers by automobile and are a useful alternative. Railway distances represent usually the shortest practicable land distances between two points and even to-day the bulk of freight and passenger traffic is by rail. Again, distances by air (sometimes called "bee-line" distances) are only useful in practice to those who travel by air. This is a growing phase of transportation, of course, but has not yet assumed such proportions that its tabulation should displace the more usual one. Again, it is not a difficult matter to estimate air-line distances from a map made to a convenient scale, whereas the ordinary reader is not able to obtain railway distances easily.

Even though it be decided to adopt railway distances as most useful, it is necessary to decide whether the most travelled route between two places or the shortest railway route should govern. In the tables given below, the distances between points are the shortest distances by railway and not necessarily the most travelled routes or the routes by which main trains travel. They are compiled principally from the railway time tables. The main table includes the capital of each province and some of the main shipping points chosen principally, but not altogether, by population; the subsidiary tables include distances of local importance. Included in the distances from Charlottetown is the distance from Borden to Cape Tormentine, over which the trains are transported by ferry; similarly, the train ferry distance between Mulgrave and Point Tupper is included in the distance from Halifax to Sydney. In the main table all the distances from Victoria include the distance travelled by boat from Victoria to Vancouver. However, wherever possible, railway distances only are used. In certain distances from Three Rivers and from Quebec it is possible, by the use of ferries, to travel by shorter routes than those given in the tables, the rail route only being taken in these cases.

Where boat routes are given, the best approximation of the distance travelled is used.

The air-line distances between are not necessarily the straight-line distances, but are the distances over the routes usually travelled by aeroplanes in good weather.

Place	St. John's	Halifax	Moncton	Charlottetown	Saint John	Fredericton	Quebec	Montréal	Shedbrooke	Three Rivers	Ottawa	Kingston	Toronto	Hamilton	London	Windsor	Fort William	Winnipeg	Brandon	Cherhill	Regina	Saskatoon	Calgary	Edmonton	Vancouver	Victoria	Prince Rupert
St. John's	0	931	904	894	1083	1099	1487	1559	1461	1545	1658	1725	1886	1925	2001	2131	2521	2817	2951	1796	1172	1288	1619	1618	4280	4165	4574
Halifax	931	0	189	219	278	292	607	1559	1461	1545	1658	1725	1886	1925	2001	2131	2521	2817	2951	1796	1172	1288	1619	1618	4280	4165	4574
Moncton	904	189	0	176	89	104	473	558	457	551	669	731	892	931	1007	1117	1527	1823	1957	2802	2178	2421	2645	2524	3286	3171	3580
Charlottetown	894	219	176	0	215	230	600	584	583	677	759	817	1018	1057	1133	1243	1653	1959	2084	2929	2305	2482	2772	2751	3413	3498	3769
Saint John	1083	278	89	215	0	67	426	416	375	500	587	649	810	849	925	1035	1445	1753	1887	2712	2108	2214	2515	2544	3210	3101	3510
Fredericton	1099	292	104	230	67	0	402	454	353	483	565	627	788	827	901	1013	1423	1730	1900	2755	2131	2247	2549	2577	3239	3124	3533
Quebec	1487	607	473	600	426	403	0	169	127	178	280	342	503	542	618	728	1079	1350	1484	2329	1705	1821	2132	2151	2815	2890	3109
Montréal	1559	1461	1545	1658	1725	1886	1925	0	101	95	111	133	173	244	335	429	559	669	755	1355	1486	2351	2131	2247	2549	2577	3239
Shedbrooke	1461	1545	1658	1725	1886	1925	1886	1925	0	195	212	274	335	470	559	669	1070	1454	1581	2432	1802	1926	2275	2254	2916	3001	3210
Three Rivers	1545	1658	1725	1886	1925	1886	1925	1886	1925	0	195	212	274	335	470	559	669	1070	1454	1581	2432	1802	1926	2275	2254	2916	3001
Ottawa	1658	1725	1886	1925	1886	1925	1886	1925	1886	1925	0	195	212	274	335	470	559	669	1070	1454	1581	2432	1802	1926	2275	2254	2916
Kingston	1725	1886	1925	1886	1925	1886	1925	1886	1925	1886	1925	0	195	212	274	335	470	559	669	1070	1454	1581	2432	1802	1926	2275	2254
Toronto	1886	1925	1886	1925	1886	1925	1886	1925	1886	1925	1886	1925	0	195	212	274	335	470	559	669	1070	1454	1581	2432	1802	1926	2275
Hamilton	1925	2001	2131	2521	2817	2951	2817	2951	2817	2951	2817	2951	2817	0	89	190	850	1246	1379	2224	1601	1716	2067	2067	2700	2704	3033
London	2001	2131	2521	2817	2951	2817	2951	2817	2951	2817	2951	2817	2951	89	0	89	190	850	1246	1379	2224	1601	1716	2067	2067	2700	2704
Windsor	2131	2521	2817	2951	2817	2951	2817	2951	2817	2951	2817	2951	2817	190	89	0	89	190	850	1246	1379	2224	1601	1716	2067	2067	2700
Fort William	2521	2817	2951	2817	2951	2817	2951	2817	2951	2817	2951	2817	2951	2817	2951	850	0	850	1246	1379	2224	1601	1716	2067	2067	2700	2704
Winnipeg	2817	2951	2817	2951	2817	2951	2817	2951	2817	2951	2817	2951	2817	2951	2817	850	1246	0	850	1246	1379	2224	1601	1716	2067	2067	2700
Brandon	2951	2817	2951	2817	2951	2817	2951	2817	2951	2817	2951	2817	2951	2817	2951	1246	1379	850	0	850	1246	1379	2224	1601	1716	2067	2067
Cherhill	1796	1172	1288	1619	1618	4280	4165	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574
Regina	1172	1288	1619	1618	4280	4165	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574
Saskatoon	1288	1619	1618	4280	4165	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574
Calgary	1619	1618	4280	4165	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574
Edmonton	4280	4165	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574
Vancouver	4165	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574
Victoria	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574
Prince Rupert	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574	4574

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Glacier Bay —	104	Campbellton —	83	St. Louis Lookout —	937	Swift Current —	219	(air-line)	380	Prince George —	691
New Glasgow —	107	St. Stephen —	39	Cochrane —	1,105	Fort Albert —	259	(air-line)	614	Prince Rupert —	546
Port aux Basques —	140	From Montreal —	39	Kenora —	1,105	North Battleford —	123	Cameroon Bay —	614	Whitehorse, Y.T. —	1,062
(by boat)		To Shawinigan Falls —	39	Cobalt —	1,105	Yorkton —	123	(air-line)	512	(port by boat)	
St. John's —	625	St. Hyacinthe —	39	Timmins —	665	From Calgary —	176	Resolution —	512	Dawson, Y.T. —	1,473
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\*Prepared under the direction of B. W. Waugh, Surveyor General, Department of Mines and Resources, Ottawa.

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NOTE.—It is not possible to include in any single edition of the Year Book all articles and descriptive text of previous editions, and the following list has been compiled as an index to such miscellaneous material and special articles as are not repeated in the present edition. This list links up the 1950 Year Book with its predecessors in respect to matters that have not been subject to wide change. Those sections of chapters, such as Population, which are automatically revived when new material is made available from a later census and to which adequate references are made in the text, are not listed unless they are in the nature of special contributions. The latest published article on each subject is shown, except when an earlier article includes material not repeated in the later one. When articles cover more than one subject they are listed under each appropriate heading.

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Recent Advances in the Field of Education in Canada.....	J. E. ROBBINS, Ph.D.	1941	876-883
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Faunas of Canada.....	P. A. TAVERNER.	1922-23	32-36
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Geology and Economic Minerals.....	GEORGE HANSON, Ph.D.	1942	3-14
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National Harbours Board.....	R. O. CAMPNEY, K.C.	1940	679-681
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The Story of Confederation.....	SIR JOSEPH POPE, K.C.M.G., C.V.O., I.S.O.	1918	1-13
History of the Great War (1914-18).....	E. A. CRUIKSHANK, LL.D., F.R.S.C.	1919	1-65
History of Canada.....	ARTHUR DOUGHTY, C.M.G., LL.D.	1922-23	60-80
Select Bibliography of the History of Canada.....	ADAM SHORTT, C.M.G., LL.D., F.R.S.C.	1925	53-55
Canada on Vimy Ridge.....	A. F. DUGUID, D.S.O., B.Sc., R.C.A.	1936	50-60
Historic Sites and Monuments.....	W. D. CROMARTY.	1938	78-90
The Relationship of the Public Archives to the Historical Records of Canada and a Bibliography of Canadian History....	GUSTAVE LANCTOT, LL.M., D. Litt., LL.- D., K.C., F.R.S.C.	1939	34-40
<b>Hospitals and Institutions—</b>			
Historical Review of Hospitals and Other Institutions.....	J. C. BRADY, M.A.	1936	1006-1009
<b>Insurance—</b>			
The Growth and Development of Life Insurance in Canada.....	A. D. WATSON.	1933	937-944
Fire and Casualty Insurance.....	G. D. FINLAYSON.	1942	842-846
Insurance in Canada during the Depression and War Periods....	G. D. FINLAYSON, C.M.G.	1947	1064-1074
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Legislation Respecting Combinations in Restraint of Trade.....	F. A. MCGREGOR.	1927-28	765-770
Labour Legislation in Canada.....	MISS M. MACKINTOSH, M.A.	1938	787-796
The National Employment Commission.	—	1938	778-779
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The Coal Deposits and Coal Resources of Canada.....	B. R. MACKAY, B.Sc., Ph.D.	1946	337-347
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The British Commonwealth Air Training Plan—A Summary of the R.C.A.F.'s. Major Role in the War of 1939-45.....	—	1946	1090-1099
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Immigration Policy.....	R. J. C. STEAD.	1931	189-192
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Nuptiality and Fertility in Canada.....	ENID CHARLES, Ph.D.	1942	100-115
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The Activities of the Wartime Prices and Trade Board in Controlling Prices, Rents and Supplies.....	—	1943-44	776-783
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Seismology in Canada.....	E. A. HODGSON, Ph.D.	1938	27-30
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Standard Time and Time Zones in Canada	C. C. SMITH.	1934-35	50-53
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The Co-operative Movement in Canada..	MISS M. MACKINTOSH, M.A.	1925	704-720
Co-operation in Canada.....	J. E. O'MEARA and LUCIENNE M. LALONDE	1942	543-546
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<b>Water Power—</b>			
The Water-Power Resources of Canada and Their Utilization.....	J. T. JOHNSTON.	1940	353-364

## ARTICLES AVAILABLE IN REPRINT FORM

NOTE.—Because of public interest in certain of the Special Articles, the policy of reprinting those that are of continuing value has been approved, and a number of them are made available each year. Those now obtainable are listed below together with prices. Applications for them should be made to the Dominion Statistician.

Article	Price	Article	Price
	cts.		cts.
<b>ENGLISH EDITIONS</b>		<b>ENGLISH EDITIONS—concluded</b>	
<b>Climate and Meteorology—</b>		<b>Miscellaneous—concluded</b>	
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Meteorology Related to the Science of Aviation.....	10	History and Development of the Canadian Broadcasting Corpora- tion.....	10
<b>Constitution and Government—</b>		Insurance in Canada During the Depression and War Periods....	10
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Primary Forest Industries of Canada, The ( <i>Canada 1948</i> ).....	10	<b>Forestry—</b>	
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Automobile Industry in Canada, The.....	10	Insectes nuisibles à la forêt.....	10
Chemical Industries in Canada, The	10	<b>Manufactures—</b>	
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<b>Miscellaneous—</b>		Pétrole du Canada: production et perspective ( <i>Canada 1949</i> ).....	10
Canadian Petroleum Production and Outlook ( <i>Canada 1949</i> ).....	10	Rôle démocratique de la presse....	10
Citizenship and Canadian Unity ( <i>Canada 1949</i> ).....	10	Voyages et unité nationale ( <i>Canada</i> <i>1948</i> ).....	10
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## WEIGHTS AND MEASURES AND OTHER INTERPRETATIVE DATA

In Canada, as a rule, the imperial system of weights and measures is followed. An exception, however, is the ton where, unless otherwise stated, the short ton of 2,000 lb. is meant.

The following table shows the weights and measures used in Canada in connection with the principal field crops and for wheat flour and fruits:—

	<i>Pounds per Bushel</i>		<i>Pounds</i>
<b>Grains—</b>		<b>Fruits (standard conversions)—</b>	
Wheat.....	60	Apples, per barrel.....	135
Oats.....	34	Apples, per box.....	43
Barley.....	48	Pears, per bushel.....	50
Rye.....	56	Plums “ “.....	50
Buckwheat.....	48	Cherries “ “.....	50
Flaxseed.....	56	Peaches “ “.....	50
Corn.....	56	Grapes “ “.....	50
Mixed grains.....	50	Pears, per box.....	42
All others.....	60	Strawberries, per quart.....	1·25
<b>Wheat Flour—</b>		Raspberries “ “.....	1·25
1 barrel equals 196 pounds and approxi- mately 4·5 bushels of wheat are used in the production of a barrel of flour.		Loganberries “ “.....	1·25

### Relative Weights and Measures, Imperial and United States

The following tables of coefficients may be used to translate amounts expressed in one unit to the other or vice versa.

1 Imperial pint=20 fluid ounces.	1 Imperial proof gallon=1·36 United States proof gallon.
1 United States pint=16 fluid ounces.	1 short ton=2,000 pounds.
1 Imperial quart=40 fluid ounces.	1 long ton=2,240 pounds.
1 United States quart=32 fluid ounces.	1 barrel crude petroleum=35 Imperial gallons.
1 Imperial gallon=160 fluid ounces.	
1 United States gallon=128 fluid ounces.	

### FISCAL YEARS OF FEDERAL AND PROVINCIAL GOVERNMENTS

The Federal Government fiscal year ends on Mar. 31.

The dates on which the fiscal years of the provinces end are as follows:—

Newfoundland.....	Mar. 31	Ontario.....	Mar. 31
Prince Edward Island.....	Mar. 31	Manitoba.....	Mar. 31
Nova Scotia.....	Nov. 30	Saskatchewan.....	Mar. 31
New Brunswick.....	Oct. 31	Alberta.....	Mar. 31
Quebec.....	Mar. 31	British Columbia.....	Mar. 31

Throughout the Year Book, fiscal-year figures are so indicated in the text and headings of tables; in all other cases figures are for calendar years.

## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA, 1871-1948

NOTE.—In the following summary, the statistics of fisheries (1871-1911), trade, shipping, the Post Office, the public debt, revenue and expenditure, and the Post Office and Government savings banks relate to the fiscal years ended June 30 up to 1906; subsequently to years ended Mar. 31, except in the case of trade, where, as indicated by footnotes, calendar-year figures are given for certain later years. Agriculture, dairying, fisheries (from 1931), mineral, manufacturing, banking, insurance, loan and trust companies, construction, road-transportation, vital, hospital, and immigration statistics relate to the calendar years, and railway statistics to the years ended June 30, 1871-1911, and to the calendar years 1921-48. Canal statistics are those of the navigation seasons. Telegraph statistics relate to the fiscal years for Government lines and to the calendar years for other lines.

# STATISTICAL SUMMARY OF THE PROGRESS OF CANADA

Area of Canada, including Newfoundland which entered Confederation in 1949, is 3,845,144 sq. miles. The land area is 3,499,116 sq. miles and the fresh water area 234,028 sq. miles (excluding Labrador, not surveyed).

NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Item		1871	1881	1891	1901	1911
<b>Population—</b>						
1	Prince Edward Island..... No.	94,021	108,891	109,078	103,259	93,728
2	Nova Scotia.....	387,800	440,572	450,396	459,574	492,338
3	New Brunswick.....	285,594	321,233	321,263	331,120	351,889
4	Quebec.....	1,191,516	1,359,027	1,488,535	1,648,898	2,005,776
5	Ontario.....	1,620,851	1,926,922	2,114,321	2,182,947	2,527,292
6	Manitoba.....	25,228	62,260	152,506	255,211	461,394
7	Saskatchewan.....	..	..	..	91,279	492,432
8	Alberta.....	..	..	..	73,022	374,295
9	British Columbia.....	36,247	49,459	98,173	178,657	392,480
10	Yukon.....	..	..	..	27,219	8,512
11	Northwest Territories.....	48,000	56,446	98,967	20,129	6,507
	Canada.....	3,689,257	4,324,810	4,833,239	5,371,315	7,206,643
<b>GAINFULLY OCCUPIED—<sup>4</sup></b>						
12	Agricultural occupations..... No.	..	..	735,207 <sup>9</sup>	716,860	933,735
13	Other primary ".....	..	..	58,211 <sup>9</sup>	71,584 <sup>9</sup>	139,877 <sup>9</sup>
14	Manufacturing ".....	..	..	237,972	299,535	372,234
15	Construction ".....	..	..	86,694	89,165	150,567
16	Transportation ".....	..	..	61,310	82,483	158,926
17	Trade and finance ".....	..	..	88,064	99,552	221,805
18	Service ".....	..	..	203,897	236,205	322,895
19	Clerical ".....	..	..	24,121 <sup>9</sup>	58,789	106,351
20	Labourers ".....	..	..	116,598	127,867	317,244
21	Not stated ".....	..	..	3,534	792	..
	Totals, Gainfully Occupied.....	..	..	1,615,608	1,782,832	2,723,634
22	WAGE-EARNERS <sup>4</sup> ..... No.	..	..	..	..	1,628,273
23	HOUSEHOLDS <sup>4</sup> ..... No.	..	800,410	900,080	1,058,386	1,482,980
<b>Immigration—</b>						
24	From United Kingdom..... No.	..	17,033	22,042	11,810 <sup>10</sup>	144,076
25	From United States.....	..	21,822	52,516	17,987 <sup>10</sup>	112,028
26	From other countries.....	..	9,136	7,607	19,352 <sup>10</sup>	75,184
	Totals.....	27,773	47,991	82,165	49,149 <sup>10</sup>	331,288
<b>Vital Statistics—<sup>4</sup></b>						
27	Births (live) <sup>12</sup> ..... No.	..	..	..	..	..
	Rates per 1,000.....	..	..	..	..	..
28	Deaths, all causes <sup>12</sup> ..... No.	..	..	..	..	..
	Rates per 1,000.....	..	..	..	..	..
29	Diseases of the heart <sup>13</sup> ..... No.	..	..	..	..	..
30	Cancer.....	..	..	..	..	..
31	Diseases of the arteries <sup>13</sup> .....	..	..	..	..	..
32	Tuberculosis (all forms) <sup>13</sup> .....	..	..	..	..	..
33	Pneumonia.....	..	..	..	..	..
34	Nephritis.....	..	..	..	..	..
35	Marriages.....	..	..	..	..	..
	Rates per 1,000.....	..	..	..	..	..
36	Divorces..... No.	4	7	10	19	57
<b>Hospitals—Public—<sup>14</sup></b>						
<b>General—</b>						
37	Hospitals..... No.	..	..	..	..	..
38	Bed capacity.....	..	..	..	..	..
39	Patient days.....	..	..	..	..	..
40	Expenditures <sup>16</sup> ..... \$	..	..	..	..	..
<b>Special—<sup>17</sup></b>						
41	Hospitals..... No.	..	..	..	..	..
42	Bed capacity.....	..	..	..	..	..
43	Patient days.....	..	..	..	..	..
44	Expenditures <sup>16</sup> ..... \$	..	..	..	..	..

<sup>1</sup> Figures are subject to revision.

<sup>2</sup> These are intercensal estimates and will be adjusted after the next census.

<sup>3</sup> Quinquennial census figures.

<sup>4</sup> Exclusive of the Territories.

<sup>5</sup> Includes all farmers' sons, 14 years and over, whether or not reported with gainful occupation.

<sup>6</sup> Excludes nomadic Indians and Indians on reserves.

<sup>7</sup> Includes pulp-mill employees and almost all mine and smelter employees, except clerical workers.

<sup>8</sup> Exclusive of persons on Active Service on June 2, 1941.

<sup>9</sup> Clerical workers in government service were included with "Service".

<sup>10</sup> Fiscal year.

<sup>11</sup> Figures for years back to 1939



# STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

The length of the Canada-United States boundary is 3,986.8 miles and that of the Canada-Alaska boundary is 1,539.8 miles. The total mainland coast line of Canada (not accurately computed) is estimated at 17,863 miles.

NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

1921	1931	1936	1939	1941	1946	1947	1948 <sup>1</sup>	
88,615	88,038	93,000	94,000	95,047	94,000 <sup>2</sup>	94,000 <sup>2</sup>	93,000 <sup>2</sup>	1
523,837	512,846	543,000	561,000	577,962	612,000 <sup>2</sup>	621,000 <sup>2</sup>	635,000 <sup>2</sup>	2
387,876	408,219	433,000	447,000	457,401	480,000 <sup>2</sup>	491,000 <sup>2</sup>	503,000 <sup>2</sup>	3
2,360,510	2,874,662	3,099,000	3,230,000	3,331,882	3,630,000 <sup>2</sup>	3,712,000 <sup>2</sup>	3,792,000 <sup>2</sup>	4
2,933,662	3,431,683	3,606,000	3,708,000	3,787,655	4,101,000 <sup>2</sup>	4,189,000 <sup>2</sup>	4,297,000 <sup>2</sup>	5
610,118	700,139	711,216 <sup>3</sup>	726,000	729,744	726,923 <sup>3</sup>	743,000 <sup>2</sup>	757,000 <sup>2</sup>	6
757,510	921,785	931,547 <sup>3</sup>	906,000	895,992	832,688 <sup>3</sup>	842,000 <sup>2</sup>	854,000 <sup>2</sup>	7
588,454	731,605	772,782 <sup>3</sup>	786,000	796,169	803,330 <sup>3</sup>	822,000 <sup>2</sup>	846,000 <sup>2</sup>	8
524,582	694,263	745,000	792,000	817,861	1,003,000 <sup>2</sup>	1,044,000 <sup>2</sup>	1,082,000 <sup>2</sup>	9
4,157	4,230	5,000	5,000	4,914	8,000 <sup>2</sup>	8,000 <sup>2</sup>	8,000 <sup>2</sup>	10
8,143	9,316	11,000	12,000	12,028	16,000 <sup>2</sup>	16,000 <sup>2</sup>	16,000 <sup>2</sup>	11
8,787,949	10,376,786	10,950,000	11,267,000	11,506,655	12,307,000 <sup>2</sup>	12,582,000 <sup>2</sup>	12,883,000 <sup>2</sup>	
1,041,544	1,131,845	..	..	1,083,816	..	..	..	12
115,953 <sup>4</sup>	150,491	..	..	203,586	..	..	..	13
407,087	495,922	..	..	709,181	..	..	..	14
162,291	203,066	..	..	213,493	..	..	..	15
199,941	289,191	..	..	311,645	..	..	..	16
293,555	352,503	..	..	370,617	..	..	..	17
421,057	617,473	..	..	725,456 <sup>4</sup>	..	..	..	18
217,937	258,689	..	..	314,051	..	..	..	19
306,652	426,396	..	..	252,693	..	..	..	20
7,152	1,654	..	..	11,413	..	..	..	21
3,173,169	3,927,230	..	..	4,195,951 <sup>5</sup>	..	..	..	
1,972,089	2,570,097	..	..	2,816,798 <sup>5</sup>	..	..	..	22
1,897,110	2,275,171	..	..	2,706,089	..	3,128,000	3,235,000	23
43,772	7,678	2,197	3,098 <sup>11</sup>	443 <sup>11</sup>	50,984 <sup>11</sup>	35,957 <sup>11</sup>	43,724 <sup>11</sup>	24
23,888	15,195	4,876	5,654 <sup>11</sup>	6,594 <sup>11</sup>	11,474 <sup>11</sup>	9,444 <sup>11</sup>	7,393 <sup>11</sup>	25
24,068	4,657	4,570	8,242 <sup>11</sup>	2,292 <sup>11</sup>	9,261 <sup>11</sup>	18,726 <sup>11</sup>	74,297 <sup>11</sup>	26
91,728	27,530	11,643	16,994	9,329	71,719	64,127	125,414	
..	240,473	220,371	229,468	255,224	330,732	359,094	347,222	27
..	23.2	20.3	20.3	22.2	26.9	28.6	27.0	
..	104,517	107,050	108,951	114,500	114,931	117,725 <sup>6</sup>	119,352	28
..	10.1	9.8	9.6	10.0	9.4	9.4	9.3	
..	13,734	16,424	18,562	26,602	29,854	32,050	33,894	29
..	9,578	11,694	12,399	13,417	14,767	15,615	16,256	30
..	5,957	9,112	10,884	2,266	2,230	2,374	2,346	31
..	7,616	6,763	5,977	6,072	5,821	5,449	4,771	32
..	7,011	7,313	6,596	5,955	5,657	5,688	5,692	33
..	5,168	6,402	6,538	7,399	6,822	6,568	6,801	34
..	66,591	80,904	103,658	121,842	134,088	127,311	123,313	35
..	6.4	7.4	9.2	10.6	10.9	10.1	9.6	
558	700	1,570	2,068	2,461	7,683	8,199	6,881	36
..	445 <sup>15</sup>	463	487	496	505	550	..	37
..	35,071 <sup>15</sup>	38,534	41,025	42,867	46,409	48,011	..	38
..	7,713,217 <sup>15</sup>	9,538,546	9,606,335	10,752,534	13,410,428	13,159,594	..	39
..	33,361,655 <sup>15</sup>	..	..	..	77,549,116	98,922,641	..	40
..	225 <sup>15</sup>	198	213	210	211	215	..	41
..	43,594 <sup>15</sup>	52,827	57,594	58,826	64,751	63,631	..	42
..	14,530,932 <sup>15</sup>	18,639,494	20,798,046	22,012,874	23,891,594	23,757,819	..	43
..	23,512,905 <sup>15</sup>	13,176,601 <sup>18</sup>	22,331,565 <sup>18</sup>	25,392,751 <sup>20</sup>	41,671,735	49,558,454	..	44

have been revised. <sup>12</sup> By place of occurrence prior to 1941; by place of residence, 1941-48. <sup>13</sup> These figures are not completely comparable owing to changes in classification in 1926 and 1938. <sup>14</sup> For reporting hospitals only: private and federal hospitals excluded. <sup>15</sup> Figures derived from 1931 census report. <sup>16</sup> Not all hospitals shown above furnished financial statements. <sup>17</sup> Includes mental and tuberculosis hospitals. <sup>18</sup> Figures for 51 mental hospitals only. <sup>19</sup> Figures for 53 mental and 38 tuberculosis hospitals only. <sup>20</sup> Figures for 55 mental and 38 tuberculosis hospitals only.

## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

	Item	1871	1881	1891	1901	1911
<b>Criminal Statistics—<sup>2</sup></b>						
1	Convictions, indictable offences... No.	..	3,509 <sup>3</sup>	3,974	5,638	11,188
2	Convictions, non-indictable offences " "	..	30,365 <sup>3</sup>	33,643	36,510	100,633
<b>Education—</b>						
3	Total enrolment <sup>4</sup> ..... No.	803,000	891,000	993,000	1,092,633	1,361,205
4	Average daily attendance <sup>5</sup> ..... " "	..	..	..	669,000	870,532
5	Teachers..... " "	13,559	18,016	23,718	27,126	40,516
6	Public expenditures on..... \$	..	..	..	11,044,925	37,971,374
<b>Agriculture—</b>						
7	Area of occupied farms..... acre	36,046,401	45,358,141	58,997,995	63,422,338	108,968,715
8	Improved lands..... " "	17,335,818	21,899,181	27,729,852	30,166,033	48,733,823
9	Gross value of agricultural production..... \$	..	..	..	..	..
<b>FIELD CROPS—<sup>7</sup></b>						
10	Wheat..... bu.	16,723,873	32,350,269	42,144,779	55,572,368	132,077,547
	" " \$	16,993,265	38,820,323	31,667,529	36,122,039	104,816,825
11	Oats..... bu.	42,489,453	70,493,131	83,428,202	151,497,407	245,393,425
	" " \$	15,966,310	23,967,665	31,702,717	51,509,118	86,796,130
12	Barley..... bu.	11,496,038	16,844,868	17,222,795	22,224,366	28,848,310
	" " \$	8,170,735	11,791,408	8,611,397	8,889,746	14,653,697
13	Corn..... bu.	3,802,830	9,025,142	10,711,380	25,875,919	14,417,599
	" " \$	2,283,145	5,415,085	5,034,348	11,902,923	5,774,039
14	Potatoes..... bu.	47,330,187	55,368,790	53,490,857	55,362,635	55,461,473
	" " \$	15,211,774	13,288,510	21,396,342	13,840,658	27,426,765
15	Hay and clover..... ton	3,818,641	5,055,810	7,693,733	6,943,715	10,406,367
	" " \$	38,869,900	40,446,480	69,243,597	85,625,315	90,115,531
	Total Areas, Field Crops <sup>9</sup> ..... acre	..	..	15,662,811	19,763,740	30,556,168
	Total Values, Field Crops <sup>9</sup> ..... \$	111,116,606	155,277,427	194,766,934	237,682,285	384,513,795
<b>LIVE STOCK AND POULTRY—<sup>10</sup></b>						
16	Horses..... No.	836,700	1,059,400	1,470,600	1,577,500	2,599,000
	" " \$	..	..	..	118,279,000	381,916,000
17	Milk cows..... No.	1,251,200	1,595,800	1,857,100	2,408,700	2,645,200
	" " \$	..	..	..	69,238,000	111,833,000
18	Other cattle..... No.	1,373,100	1,919,200	2,263,500	3,167,800	3,880,900
	" " \$	..	..	..	54,197,000	84,021,000
19	Sheep..... No.	3,155,500	3,048,700	2,563,800	2,510,200	2,174,300
	" " \$	..	..	..	10,491,000	10,702,000
20	Swine..... No.	1,366,100	1,207,600	1,733,900	2,353,800	3,634,800
	" " \$	..	..	..	16,446,000	26,987,000
21	All poultry..... No.	..	..	14,105,100	17,922,700	31,793,300
	" " \$	..	..	..	5,724,000	14,654,000
	Total Values, Live Stock and Poultry..... \$	..	..	..	274,375,000	630,113,000
<b>DAIRYING—<sup>11</sup></b>						
22	Total milk production..... '000 lb.	..	..	..	6,866,834	9,806,741
23	Cheese, factory <sup>12</sup> ..... lb.	..	54,574,856	97,418,855	220,833,269	199,904,205
	" " \$	..	5,457,486	9,741,886	22,221,430	21,587,124
24	Butter, creamery..... lb.	..	1,365,912	3,654,364	36,066,739	64,489,398
	" " \$	..	341,478	913,591	7,240,972	15,597,807
25	Butter, dairy..... lb.	..	102,545,169	111,577,210	105,343,076	137,110,200
	" " \$	..	..	..	21,384,644	30,269,497
26	Other dairy products <sup>13</sup> ..... \$	..	..	..	15,623,907	35,927,426
	Total Values, Dairy Products... \$	..	22,743,939	30,315,214	66,470,953	103,381,854
<b>Forestry—</b>						
27	Primary forest production..... \$	..	..	..	..	..
28	Lumber production..... M ft. b.m.	..	..	..	..	4,918,202
	" " \$	..	..	..	..	75,830,954
29	Total sawmill products..... \$	..	..	..	..	..
30	Pulp and paper products..... \$	..	..	..	..	..
31	Exports of wood, wood products and paper <sup>14</sup> ..... \$	..	..	25,351,085	33,099,915	56,334,695

<sup>1</sup> Figures are subject to revision.<sup>2</sup> Year ended Sept. 30.<sup>3</sup> 1886 figures; first year available.<sup>4</sup> All types of educational institutions.<sup>5</sup> Ordinary and technical day schools.<sup>6</sup> Excluding \$29,000,000 spent by Federal Government on education of veterans.<sup>7</sup> Figures for the decennial census years 1871–1921 are for the next preceding years; those for 1871 are for the four original provinces only.<sup>8</sup> Cwt.<sup>9</sup> Includes other field crops, e.g., rye and flaxseed, not included above.<sup>10</sup> On farms only.<sup>11</sup> Figures for

## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

1921	1931	1936	1939	1941	1946	1947	1948 <sup>1</sup>	
16,169 155,376	31,542 327,778	36,059 377,706	53,125 431,203	42,646 547,556	46,939 659,672	44,056 752,453	41,632 876,645	<b>1</b> <b>2</b>
1,880,805 1,349,256 56,607 112,976,543	2,264,106 1,801,955 71,246 144,748,823	2,189,450 1,832,357 71,701 114,685,037	2,236,342 1,870,563 74,549 122,974,590	2,131,391 1,802,300 75,308 129,817,268	2,513,528 1,799,316 <sup>r</sup> 76,808 250,000,000	2,542,130 1,847,594 96,305 290,107,000 <sup>s</sup>	.. .. .. ..	<b>3</b> <b>4</b> <b>5</b> <b>6</b>
140,887,903 70,769,548	163,119,231 85,733,309	.. ..	.. ..	174,673,535 92,385,920	.. ..	.. ..	.. ..	<b>7</b> <b>8</b>
1,386,126,000	836,441,000	1,067,555,000	1,224,616,000	1,432,601,000	..	..	..	<b>9</b>
226,508,411 374,178,601 364,989,218 180,989,587 42,956,049 33,514,070 10,822,275 7,081,140 62,230,052 44,635,547 8,829,915 174,110,386	321,325,000 123,550,000 328,278,000 77,970,000 67,382,600 17,465,000 5,449,000 2,274,000 52,305,000 <sup>s</sup> 22,359,000 14,339,600 110,110,000	219,218,000 205,327,000 271,778,000 116,267,000 71,922,000 49,512,000 6,083,000 4,258,000 39,614,000 <sup>s</sup> 45,125,000 13,803,000 105,703,000	520,623,000 282,151,000 384,407,000 114,843,000 103,147,000 35,424,000 8,097,000 4,453,000 36,390,000 <sup>s</sup> 41,065,000 13,377,000 112,305,000	314,825,000 171,875,000 305,575,000 125,920,000 110,566,000 47,651,000 12,036,000 8,599,000 39,052,000 <sup>s</sup> 48,274,000 12,632,000 158,723,000	413,725,000 631,079,000 371,069,000 213,786,000 148,887,000 114,670,000 10,661,000 11,269,000 47,963,000 <sup>s</sup> 82,721,000 14,373,000 183,974,000	341,758,000 <sup>r</sup> 526,740,000 <sup>r</sup> 278,670,000 <sup>r</sup> 226,947,000 <sup>r</sup> 141,372,000 <sup>r</sup> 155,759,000 <sup>r</sup> 6,682,000 <sup>r</sup> 12,506,000 <sup>r</sup> 45,114,000 <sup>s</sup> 99,362,000 <sup>r</sup> 16,193,000 251,154,000 <sup>r</sup>	393,345,000 624,160,000 358,807,000 253,915,000 155,018,000 145,512,000 12,417,000 16,369,000 55,260,000 <sup>s</sup> 82,445,000 16,073,000 248,346,000	<b>10</b> <b>11</b> <b>12</b> <b>13</b> <b>14</b> <b>15</b>
47,553,418 933,045,936	58,862,305 435,966,400	58,146,850 612,300,400	59,224,600 685,839,000	56,788,400 683,889,000	59,642,000 1,424,417,000 <sup>r</sup>	60,774,000 1,531,046,000 <sup>r</sup>	61,218,000 1,673,766,000	
3,451,800 414,808,000 3,086,700 188,518,000 5,282,800 146,567,000 3,200,500 20,675,000 3,324,300 35,869,000 37,185,800 38,015,000	3,113,900 205,087,000 3,371,900 160,655,000 4,601,100 94,952,000 3,627,100 19,680,000 4,699,800 33,288,000 65,468,000 45,138,000	2,877,500 206,990,000 3,805,400 139,916,000 5,023,600 114,126,000 3,159,400 17,064,000 4,135,800 45,344,000 59,339,400 40,366,000	2,824,340 189,768,000 3,873,500 179,807,000 4,601,100 151,087,000 3,365,800 22,511,000 4,294,000 59,213,000 61,139,800 46,459,700	2,788,800 184,461,000 3,623,900 191,085,000 4,893,400 138,308,000 2,840,100 17,039,000 6,081,400 54,912,000 63,471,000 27,412,000	2,200,000 165,076,000 3,711,000 410,190,000 5,954,000 327,394,000 2,942,000 29,560,000 4,910,000 112,016,000 80,835,000 83,979,000	2,032,000 158,375,000 3,697,000 431,942,000 6,021,000 368,029,000 2,707,000 30,099,000 5,473,000 134,035,000 88,254,000 97,947,000	1,905,000 147,387,000 3,701,000 503,057,000 5,770,000 425,976,000 2,251,000 28,656,000 4,463,000 140,275,000 72,580,000 80,582,000	<b>16</b> <b>17</b> <b>18</b> <b>1</b> <b>20</b> <b>21</b>
844,452,000	558,800,000	563,806,000	648,845,700	613,217,000	1,128,215,000	1,220,427,000	1,325,934,000	
11,897,545 <sup>r</sup> 162,117,000 <sup>r</sup> 28,710,000 128,745,000 <sup>r</sup> 48,135,000 107,379,000 <sup>r</sup> 35,307,000 <sup>r</sup> 110,623,000 <sup>r</sup>	14,339,686 113,956,639 12,824,695 225,955,246 50,198,878 98,590,000 20,098,000 109,262,600 <sup>r</sup>	15,122,426 119,123,483 15,565,813 250,931,777 57,662,160 95,405,000 17,645,000 107,606,628 <sup>r</sup>	15,781,104 125,475,359 15,311,782 267,612,546 61,748,399 87,459,000 <sup>r</sup> 16,140,000 123,671,635 <sup>r</sup>	16,549,902 151,866,000 <sup>r</sup> 24,737,037 285,848,196 93,199,557 82,796,000 24,373,000 159,363,878	16,955,553 148,884,000 36,528,000 271,491,000 105,450,000 54,225,000 21,144,000 260,517,000	17,240,788 <sup>r</sup> 124,831,000 <sup>r</sup> 35,115,000 <sup>r</sup> 290,952,000 152,939,000 56,295,000 28,018,000 <sup>r</sup> 316,115,000	16,645,141 <sup>r</sup> 88,781,000 <sup>r</sup> 31,574,000 284,431,000 189,883,000 62,843,000 41,008,000 356,957,000	<b>22</b> <b>23</b> <b>24</b> <b>25</b> <b>26</b>
222,775,000 <sup>r</sup>	192,384,173	198,479,601	216,871,816 <sup>r</sup>	301,673,472	423,639,000	532,187,000 <sup>r</sup>	619,422,000	
168,054,024 2,869,307 82,448,585 116,891,191 151,003,165	141,123,930 2,497,553 45,977,843 62,769,253 174,733,954	134,804,228 3,412,151 61,965,540 80,343,291 185,144,603	157,747,398 3,976,882 78,331,839 100,132,697 208,152,295	213,163,089 4,941,084 129,287,703 163,412,292 334,429,175	413,269,314 5,083,280 230,189,699 287,910,057 527,814,916	519,804,128 5,877,901 322,048,356 402,133,298 706,971,628	.. .. .. .. 825,857,664 <sup>r</sup>	<b>27</b> <b>28</b> <b>29</b> <b>30</b>
284,561,478	185,493,491	210,206,707	242,541,043	387,113,232	625,591,155	886,192,034	953,673,527	<b>31</b>

the decennial census years 1881-1921 are for the next preceding years. In the Censuses of 1881 and 1891 values only were given of factory butter and cheese; quantities have been calculated by reckoning cheese at 10 cents per lb. and butter at 25 cents per lb.

<sup>12</sup> Data shown for 1946-48 represent cheddar and other cheese made from whole milk; prior to 1942 the figures include other cheese for Quebec only.

<sup>13</sup> Prior to 1921 this item does not include

skim milk and buttermilk.

<sup>14</sup> Fiscal years prior to 1931.



## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

Item		1871	1881	1891	1901	1911
<b>Furs—</b>						
1	Pelts taken..... No.	..	..	..	..	..
	\$	..	..	..	..	..
2	Value of animals on fur farms..... \$	..	..	..	..	..
3	<b>Fisheries..... \$</b>	7,573,199	15,817,162	18,977,874	25,737,153	34,667,872
<b>Mineral Production—</b>						
4	Gold <sup>2</sup> ..... oz.	105,187	63,524	45,018	1,167,216	473,159
	\$	2,174,412	1,313,153	930,614	24,128,503	9,781,077
5	Silver..... oz.	..	355,083 <sup>3</sup>	414,523	5,539,192	32,559,044
	\$	..	347,271 <sup>3</sup>	409,549	3,265,354	17,355,272
6	Copper..... lb.	..	3,260,424 <sup>3</sup>	9,529,401	37,827,019	55,648,011
	\$	..	366,798 <sup>3</sup>	1,226,703	6,096,581	6,886,998
7	Lead..... lb.	..	204,800 <sup>3</sup>	88,665	51,900,958	23,784,969
	\$	..	9,216 <sup>3</sup>	3,857	2,249,387	827,717
8	Zinc..... lb.	..	..	..	788,000 <sup>4</sup>	1,877,479
	\$	..	..	..	36,011 <sup>4</sup>	108,105
9	Nickel..... lb.	..	830,477 <sup>5</sup>	4,035,347	9,189,047	34,098,744
	\$	..	498,286 <sup>5</sup>	2,421,208	4,594,523	10,229,623
10	Pig-iron..... long ton	..	22,167 <sup>3</sup>	21,331	244,979	819,228
11	Coal..... short ton	1,063,742 <sup>7</sup>	1,537,106	3,577,749	6,486,325	11,323,388
	\$	1,763,423 <sup>7</sup>	2,688,621	7,019,425	12,699,243	26,467,646
12	Natural gas..... M cu. ft.	..	..	150,000 <sup>8</sup>	339,476	1,917,678
	\$	..	..	755,298	622,392	291,092
13	Petroleum, crude..... bbl.	..	368,987	1,010,211	1,008,275	357,073
	\$	..	..	9,279	40,217	127,414
14	Asbestos..... short ton	..	..	999,878	1,259,759	2,943,108
	\$	..	..	93,479	450,394	5,602,915
15	Cement..... bbl.	..	69,843 <sup>3</sup>	108,561	660,030	7,644,537
	\$	..	81,909 <sup>3</sup>	..	..	..
	Totals, Mineral Production <sup>9</sup> ..... \$	..	10,221,255 <sup>10</sup>	18,976,616	65,797,911	103,220,994
<b>Central Electric Stations—</b>						
16	Power houses..... No.	..	..	80	58	266
17	Capital invested..... \$	..	..	4,113,771	11,891,025	110,838,746
18	Power generated..... '000 kwh.	..	..	..	..	..
19	Customers..... No.	..	..	..	..	..
<b>Water Power—</b>						
20	Turbine h.p. installed..... No.	..	..	71,219	238,902	1,363,134
<b>Manufactures—<sup>11</sup></b>						
21	Employees..... No.	187,942	254,935	369,595	339,173	515,203
22	Capital..... \$	77,964,020	165,302,623	353,213,000	446,916,487	1,247,583,609
23	Salaries and wages..... \$	40,851,009	59,429,002	100,415,350	113,249,350	241,008,416
24	Values of materials used in..... \$	124,907,846	179,918,593	250,759,292	266,527,858	601,509,018
<b>Products—</b>						
25	Gross..... \$	221,617,773	309,676,068	469,847,886	481,053,375	1,165,975,639
26	Net..... \$	96,709,927	129,757,475	219,088,594	214,525,517	564,466,621
<b>Construction—</b>						
27	Values of contracts awarded..... \$	..	..	..	..	345,425,000
<b>Steam Railways—</b>						
28	Miles in operation..... No.	2,695	7,331	13,838	18,140	25,400
29	Capital..... \$	257,035,188 <sup>12</sup>	284,419,293	632,061,440	816,110,837	1,528,689,201
30	Passengers..... No.	5,190,416 <sup>14</sup>	6,943,671	13,222,568	18,385,722	37,097,718
31	Freight..... ton	5,670,836 <sup>14</sup>	12,065,323	21,753,021	36,999,371	79,834,282
32	Earnings..... \$	19,470,539 <sup>14</sup>	27,987,509	48,192,099	72,898,749	188,733,494
33	Expenses..... \$	15,775,532 <sup>14</sup>	20,121,418	34,960,449	50,368,726	131,034,785
<b>Electric Railways—</b>						
34	Miles in operation..... No.	..	..	..	553	1,224
35	Capital..... \$	..	..	..	..	111,532,347
36	Passengers..... No.	..	..	..	120,934,656	426,296,792
37	Freight..... ton	..	..	..	287,926	1,228,362
38	Earnings..... \$	..	..	..	5,768,283	20,356,952
39	Expenses..... \$	..	..	..	3,435,162	12,096,134
<b>Road Transportation—</b>						
40	Highways, total mileages <sup>16</sup> ..... No.	..	..	..	..	..
41	Capital expenditure on <sup>16</sup> ..... \$	..	..	..	..	..
42	Motor-vehicles registered..... No.	..	..	..	..	21,783
43	Total provincial revenue from licences and operation..... \$	..	..	..	..	..

<sup>1</sup> Figures are subject to revision.<sup>2</sup> As from 1932 the values include exchange equalization.<sup>3</sup> 1887.<sup>4</sup> 1898.<sup>5</sup> 1889.<sup>6</sup> Short tons.<sup>7</sup> 1874.<sup>8</sup> 1892.<sup>9</sup> Includes other items not specified.<sup>10</sup> 1886.<sup>11</sup> The statistics of manufactures in 1871, 1881 and 1891 include all establishments irrespective of the number of employees. From 1901, statistics are for establishments with five hands or over. The figures shown for census years prior to 1921 are for the preceding year. From 1922, statistics are exclusive of construction

## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

1921	1931	1936	1939	1941	1946	1947	1948 <sup>1</sup>	
2,936,407	4,060,356	4,596,713	6,492,222	7,257,337	7,593,416	7,486,914 <sup>2</sup>	7,952,146	1
10,151,594	11,803,217	15,464,883	14,286,937	21,123,161	43,870,541	26,349,997 <sup>2</sup>	32,232,992	2
5,977,545	8,497,237	9,838,280	6,920,464	7,928,971	16,335,287	14,115,949 <sup>2</sup>	..	3
34,931,935	30,517,306	39,165,055	40,075,922	62,258,997	121,124,733 <sup>2</sup>	123,900,303 <sup>2</sup>	139,776,920	4
926,329	2,693,892	3,748,028	5,094,379	5,345,179	2,832,554	3,070,221 <sup>2</sup>	3,495,403	5
19,148,920	58,093,396	131,293,421	184,115,951	205,789,392	104,096,359	107,457,735 <sup>2</sup>	122,339,105	6
13,543,198	20,562,247	18,334,487	23,163,629	21,754,408	12,544,100	12,504,018 <sup>2</sup>	15,642,149	7
8,485,355	6,141,943	8,273,804	9,378,490	8,323,454	10,493,139	9,002,893 <sup>2</sup>	11,731,613	8
47,620,820	292,304,390	421,027,732	608,825,570	643,316,713	367,936,875	451,723,093 <sup>2</sup>	479,759,756	9
5,953,555	26,114,065	39,514,101	60,934,859	64,407,497	46,632,093	91,541,888 <sup>2</sup>	107,111,669	10
66,679,592	267,342,482	383,180,909	388,569,550	460,167,005	353,973,776	323,336,687 <sup>2</sup>	336,636,058	11
3,828,742	7,260,183	14,993,869	12,313,768	15,470,815	23,893,230	44,200,124 <sup>2</sup>	60,729,144	12
53,089,356	237,245,451	333,182,736	394,533,860	512,381,636	470,620,360	415,725,826 <sup>2</sup>	464,189,141	13
2,471,310	6,059,249	11,045,007	12,108,244	17,477,337	86,755,450	49,686,010 <sup>2</sup>	64,661,547	14
19,293,060	65,666,320	169,739,383	226,105,865	282,258,235	192,124,537	237,251,496 <sup>2</sup>	257,741,704	15
6,752,571	15,267,453	43,876,525	50,920,305	68,656,795	45,385,155	70,650,764 <sup>2</sup>	85,615,175	16
593,829	420,038	678,231	755,731	1,528,053 <sup>2</sup>	1,406,252 <sup>2</sup>	1,962,848 <sup>2</sup>	2,120,909 <sup>2</sup>	17
15,057,493	12,243,211	15,229,182	48,676,990	18,225,921	17,811,747 <sup>2</sup>	15,868,866 <sup>2</sup>	18,449,689	18
72,451,656	41,207,682	45,701,934	15,692,698	58,059,630	75,820,159 <sup>2</sup>	77,474,954 <sup>2</sup>	106,684,008	19
14,077,601	25,874,723	28,113,348	35,185,146	43,495,353	47,900,484	52,656,567 <sup>2</sup>	56,636,951	20
4,594,164	9,026,754	10,762,243	12,507,307	12,665,116	12,165,050	13,429,558 <sup>2</sup>	14,608,689	21
187,541	1,542,573	1,500,374	7,826,301	10,133,838	7,585,555	7,692,492 <sup>2</sup>	12,098,166	22
641,533	4,211,674	4,321,767	9,846,352	14,415,096	14,989,032	19,575,682 <sup>2</sup>	36,858,959	23
92,761	164,296	301,287	364,472	477,846	558,181	661,821 <sup>2</sup>	707,843	24
4,906,230	4,812,886	9,958,183	15,859,212	21,468,840	25,240,562	33,005,748 <sup>2</sup>	41,318,118	25
5,752,885	10,161,658	4,508,718	5,731,264	8,368,711	11,560,483	11,936,245 <sup>2</sup>	14,127,123	26
14,195,143	15,826,243	6,908,192	8,511,211	13,063,588	20,122,503	21,968,909 <sup>2</sup>	28,264,987	27
171,923,342	230,434,726	361,919,372	474,602,059	560,241,290	502,816,251	644,869,975 <sup>2</sup>	820,248,865	28
510	559	561	611	607	600	607	..	29
484,669,451	1,229,988,951	1,483,116,649	1,564,603,211	1,641,460,451	..	..	..	30
5,614,132	16,330,867	25,402,282	28,338,030	33,317,663	41,736,987	43,424,799	..	31
973,212	1,632,792	1,740,933	1,941,663	2,081,270	2,476,830	2,643,327	..	32
2,754,157	6,666,337	7,945,590	8,289,212	8,845,038	10,312,123	10,490,923	10,870,718	33
438,555	528,640	594,359	658,114	961,178	1,058,156	1,131,750	1,162,000	34
2,697,858,073	3,705,701,893	3,271,263,531	3,647,024,449	4,905,503,966	1,740,687,254	2,085,925,966	2,397,000,000	35
497,399,761	2,587,566,990	612,071,434	737,811,153	1,264,862,643	4,358,234,766	5,534,280,019	6,490,000,000	36
1,365,292,885	1,221,911,982	1,624,213,996	1,836,159,375	3,296,547,019	..	..	..	37
2,488,987,148	2,555,126,448 <sup>12</sup>	3,002,403,814 <sup>12</sup>	3,474,783,528 <sup>12</sup>	6,076,308,124 <sup>12</sup>	8,035,692,471 <sup>12</sup>	10,081,026,580 <sup>12</sup>	11,800,887,000 <sup>12</sup>	38
1,123,694,263	1,252,017,248 <sup>12</sup>	1,289,592,672 <sup>12</sup>	1,531,051,901 <sup>12</sup>	2,605,119,788 <sup>12</sup>	3,467,004,980 <sup>12</sup>	4,292,055,802 <sup>12</sup>	4,956,000,000 <sup>12</sup>	39
240,133,300	315,482,000	162,588,000	187,178,500	393,991,300	663,355,100	718,137,100	954,082,400	40
39,191	42,280	42,552	42,637	42,441	42,335	42,322	42,248	41
2,164,687,636	4,232,022,088	4,487,605,511	3,367,702,730	3,397,488,564	3,290,597,847	3,308,617,891	3,250,339,504	42
46,793,251	26,396,812	20,497,616	20,482,296	29,779,241	43,405,177	40,941,387	38,279,981	43
83,730,829 <sup>15</sup>	74,129,694 <sup>15</sup>	75,846,566 <sup>15</sup>	84,631,122 <sup>15</sup>	116,808,091 <sup>15</sup>	139,256,125 <sup>15</sup>	152,855,820 <sup>15</sup>	154,932,804 <sup>15</sup>	44
458,008,891	358,549,382	334,768,557	367,179,095	538,291,947	718,501,764	785,177,920	875,832,290	45
422,581,205	321,025,588	283,345,968	304,373,285	403,733,542	623,529,472	690,821,047	808,126,455	46
1,680	1,379	1,247	1,083	1,028	1,004	895	779	47
177,187,436	215,818,096	205,062,353	204,581,406	193,532,914	167,698,852	172,162,472	168,830,761	48
719,305,441	720,468,361	614,890,897	632,553,152	795,170,569	1,344,916,773	1,323,723,782	1,309,565,795	49
2,282,292	1,977,441	2,265,023	2,313,748	3,265,449	3,506,805	3,655,278	4,050,111	50
44,536,832	49,088,310	41,391,927	42,864,150	55,334,647	87,515,721	86,519,712	89,310,215	51
35,945,516	35,367,068	28,807,311	29,605,328	37,030,823	75,550,821	81,787,723	88,024,727	52
..	378,094	410,448	497,707	561,489	553,370	554,491	..	53
..	66,250,229	34,966,916	62,577,241	37,237,954	80,589,053	124,803,912	..	54
464,805	1,200,668	1,240,124	1,439,245	1,572,784	1,622,463	1,835,959	2,035,352	55
..	42,231,027	61,026,358	79,915,560	91,139,300	87,450,942	157,075,644	175,618,381	56

hand trades, repair and custom work. Figures for 1931-48 include non-ferrous metal smelting not included in earlier years.

<sup>12</sup> Since 1924 the net value of production is computed by subtracting the cost of fuel and electricity as well as the cost of materials from the gross value of the products.

<sup>13</sup> 1876.

<sup>14</sup> 1875.

<sup>15</sup> Duplication eliminated.

<sup>16</sup> Fiscal years.

## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

	Item	1871	1881	1891	1901	1911
<b>Canals—</b>						
1	Passengers carried..... No.	100,377	118,136	146,336	190,428	304,904
2	Freight..... ton	3,955,621	2,853,230	2,902,526	5,665,259	38,030,353
<b>Shipping—</b>						
3	Vessels on the registry..... No.	..	7,394	7,015	6,697	8,088
	Sea-Going— <sup>2,3</sup> ..... ton	..	1,310,896	1,005,475	666,276	770,446
4	Entered..... ton	2,521,573	4,032,946	5,273,935	7,514,732	11,919,339
5	Cleared..... ton	2,594,460	4,071,391	5,421,261	7,028,330	10,377,847
6	Totals..... ton	5,116,033	8,104,337	10,695,196	14,543,062	22,297,186
7	Inland International— <sup>4,5</sup> ..... ton	4,055,198	2,934,503	4,098,434	5,720,575	13,286,102
8	Entered..... ton	3,954,797	2,763,592	4,009,018	5,766,171	11,846,257
9	Cleared..... ton	8,009,995	5,698,095	8,107,452	11,486,746	25,132,359
10	Coastwise— <sup>2</sup> ..... ton	..	7,664,863	12,835,774	17,927,959	34,280,669
11	Entered..... ton	..	7,451,903	12,150,356	16,516,837	32,347,265
12	Cleared..... ton	..	15,116,766	24,986,130	34,444,796	66,627,934
	Totals..... ton	..	..	..	..	..
<b>Air Transportation—</b>						
13	Miles flown..... No.	..	..	..	..	..
14	Passenger miles..... lb.	..	..	..	..	..
15	Freight carried..... lb.	..	..	..	..	..
16	Mail carried..... lb.	..	..	..	..	..
<b>Communications—</b>						
17	Telegraphs, Govt., miles of line... No.	..	1,947	2,699	5,744	8,446
18	Telegraphs, other, miles of line... No.	..	..	27,866	30,194	33,905
19	Telephones..... No.	..	..	..	63,192	302,759 <sup>6</sup>
20	Telephones, employees <sup>7</sup> ..... No.	..	..	..	..	10,425 <sup>6</sup>
21	Radio receiving licences..... No.	..	..	..	..	..
<b>Post Office—</b>						
22	Revenues..... \$	803,637	1,344,970	2,515,824	3,421,192	9,146,952
23	Expenditures..... \$	994,876	1,876,658	3,161,676	3,837,376	7,954,223
24	Money orders issued..... \$	4,546,434	7,725,212	12,478,178	17,956,258	70,614,862
<b>Wholesale and Retail Trade—</b>						
<b>Wholesale—<sup>8</sup></b>						
25	Establishments..... No.	..	..	..	..	..
26	Employees..... \$	..	..	..	..	..
27	Net sales..... \$	..	..	..	..	..
28	Retail—Stores <sup>8</sup> ..... No.	..	..	..	..	..
29	Employees, full-time..... No.	..	..	..	..	..
30	Net sales..... \$	..	..	..	..	..
<b>Retail Services—<sup>8</sup></b>						
31	Establishments..... No.	..	..	..	..	..
32	Employees, full-time..... No.	..	..	..	..	..
33	Receipts..... \$	..	..	..	..	..
<b>Commercial Failures..... No.</b>						
34	Liabilities..... \$	..	..	1,861	1,341	1,332
35	Liabilities..... \$	..	..	16,723,939	10,811,671	13,491,196
<b>Foreign Trade—</b>						
36	Exports <sup>11,12</sup> ..... \$	57,630,024	83,944,701	88,671,738	177,431,386	274,316,553
37	Imports <sup>11,13</sup> ..... \$	84,214,388	90,488,329	111,533,954	177,930,919	452,724,603
	Totals, Foreign Trade <sup>11</sup> ..... \$	141,844,412	174,433,030	200,205,692	355,362,305	727,041,156
38	Total exports to Commonwealth <sup>14</sup> ..... \$	..	..	47,137,203	100,748,097	148,967,442
39	Exports to United Kingdom <sup>14</sup> ..... \$	21,733,556	42,637,219	43,243,784	92,857,525	132,156,924
40	Total imports from Commonwealth <sup>14</sup> ..... \$	..	..	44,337,052	46,653,228	129,467,647
41	Imports from United Kingdom <sup>14</sup> ..... \$	48,498,202	42,885,142	42,018,943	42,820,334	109,934,753
42	Exports to United States <sup>14</sup> ..... \$	29,164,358	34,038,431	37,743,420	67,983,073	104,115,823
43	Imports from United States <sup>14</sup> ..... \$	27,185,586	36,338,701	52,033,477	107,377,906	275,824,265
<b>EXPORTS, DOMESTIC, BY CHIEF ITEMS—<sup>14</sup></b>						
44	Wheat..... bu.	1,748,977	2,523,673	2,108,216	9,739,758	45,802,115
45	Wheat flour..... bbl.	1,981,917	2,593,820	1,583,084	6,871,939	45,521,134
	Wheat flour..... bbl.	306,339	439,728	296,784	1,118,700	3,049,046
	Wheat flour..... bbl.	1,609,849	2,173,108	1,388,578	4,015,226	13,854,790

<sup>1</sup> Figures are subject to revision. <sup>2</sup> Fiscal year figures prior to 1941. <sup>3</sup> In foreign service, which includes sea-going and inland international after 1936. <sup>4</sup> Excludes non-commercial. <sup>5</sup> Prior to 1941 Temiskaming and Northern Ontario Railway Commission was not included. <sup>6</sup> As at June 30. <sup>7</sup> Excludes rural lines in Saskatchewan. <sup>8</sup> Census figures for calendar years 1930 and 1941, respectively.



## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

1921	1931	1936	1939	1941	1946	1947	1948 <sup>1</sup>	
230,129 9,407,021	126,633 16,189,074	59,855 21,468,816	62,790 23,391,077	100,092 23,453,367	79,298 18,654,919	76,080 21,537,191 <sup>r</sup>	85,540 23,559,313	<b>1</b> <b>2</b>
7,482 1,223,973	8,966 1,484,423	9,373 1,367,071	8,419 1,287,365	8,667 1,271,811	10,070 1,601,455	10,931 1,710,031	11,598 1,846,703	<b>3</b>
12,516,503 12,400,226 24,916,729	28,064,762 26,535,387 54,600,149	28,895,751 29,156,876 58,052,627	31,353,871 32,044,242 63,398,113	31,452,400 33,313,400 64,765,800	30,367,071 34,144,608 64,511,679	35,926,095 40,784,955 76,711,050	39,443,055 44,329,334 83,772,389	<b>4</b> <b>5</b> <b>6</b>
14,828,454 14,903,447 29,731,901	17,769,690 18,542,037 36,311,727	14,472,022 14,998,858 29,470,880	13,421,245 15,008,129 28,429,374	.. .. ..	.. .. ..	.. .. ..	.. .. ..	<b>7</b> <b>8</b> <b>9</b>
28,567,545 27,773,668 56,341,213	47,134,652 47,540,555 94,675,207	42,979,361 41,815,616 84,794,977	45,386,457 43,183,652 88,570,109	48,107,158 46,433,320 94,540,478	45,559,014 41,218,108 86,777,122	51,823,502 <sup>r</sup> 47,018,417 98,841,919	52,453,382 47,680,583 100,133,965	<b>10</b> <b>11</b> <b>12</b>
294,449 .. 79,850 ..	7,046,276 4,073,552 2,372,467 470,461	7,100,401 9,653,196 22,947,105 1,161,069	10,969,271 26,107,750 21,253,364 1,900,347	12,508,390 56,723,714 16,559,611 3,411,971	28,411,993 215,747,981 25,226,986 5,930,338	36,032,569 <sup>a</sup> 257,945,385 <sup>a</sup> 34,241,378 <sup>a</sup> 6,965,895	38,334,101 <sup>a</sup> 342,685,230 <sup>a</sup> 37,262,712 <sup>a</sup> 10,110,252	<b>13</b> <b>14</b> <b>15</b> <b>16</b>
11,207 41,577 902,090 19,943 ..	9,300 43,928 1,364,200 23,825 523,100	8,893 44,014 1,266,228 17,775 862,109	8,780 43,684 1,397,272 17,636 1,223,502	9,919 <sup>s</sup> 43,047 1,562,146 20,103 1,454,717	9,343 <sup>s</sup> 43,180 <sup>s</sup> 2,026,118 33,170 1,754,351	7,579 <sup>s</sup> 43,445 2,230,597 35,578 1,807,824	7,579 <sup>s</sup> 43,379 2,451,868 38,851 1,944,027	<b>17</b> <b>18</b> <b>19</b> <b>20</b> <b>21</b>
26,331,119 24,661,262 173,523,322	30,416,107 36,292,604 167,749,651	32,507,888 30,100,102 121,810,839	35,288,220 35,456,181 145,204,787	40,383,366 38,699,674 173,565,550	68,635,559 57,729,646 290,933,503	72,986,624 64,213,050 329,557,703 <sup>r</sup>	77,768,801 67,943,476 370,232,987	<b>22</b> <b>23</b> <b>24</b>
.. .. .. .. .. ..	13,140 90,564 3,325,210,300 125,003 238,683 2,320,963,000	.. .. .. .. .. 2,208,142,000 <sup>9</sup>	.. .. .. .. .. 2,447,658,000 <sup>9</sup>	24,758 117,471 5,290,751,000 137,331 297,047 3,440,901,700	.. .. .. .. .. ..	.. .. .. .. .. 7,137,820,000	.. .. .. .. .. 8,109,779,000	<b>25</b> <b>26</b> <b>27</b> <b>28</b> <b>29</b> <b>30</b>
.. .. ..	42,223 55,257 249,455,900	.. .. ..	.. .. ..	49,271 62,781 254,678,000	.. .. ..	.. .. ..	.. .. ..	<b>31</b> <b>32</b> <b>33</b>
2,451 <sup>10</sup> 73,299,111 <sup>10</sup>	2,563 <sup>10</sup> 52,987,554 <sup>10</sup>	1,238 11,314,000	1,299 11,635,000	882 6,959,000	130 4,003,000	304 7,228,000	493 11,755,000	<b>34</b> <b>35</b>
800,149,296 799,478,483	587,653,440 628,098,386	937,824,933 635,190,844	924,926,104 751,055,534	1,621,003,175 1,448,791,650	2,312,215,301 1,927,279,402	2,774,902,355 2,573,944,125	3,075,438,085 2,636,945,352	<b>36</b> <b>37</b>
1,599,627,779	1,215,751,826	1,573,015,777	1,675,981,638	3,069,794,825	4,239,494,703	5,348,846,480	5,712,383,437	
403,452,219 312,844,871	219,781,406 170,597,455	479,646,028 395,351,950	430,806,546 328,099,242	878,640,907 658,228,354	904,700,873 597,506,175	1,168,501,085 751,198,395	1,032,391,006 686,914,277	<b>38</b> <b>39</b>
266,002,688 213,973,562 542,322,967 856,176,820	151,999,922 109,468,081 240,196,849 393,775,289	189,319,021 122,971,264 333,916,949 369,141,513	188,900,276 114,007,409 380,392,047 496,898,466	359,942,070 219,418,957 599,713,463 1,004,498,152	340,500,712 201,433,220 887,940,676 1,405,296,699	354,393,855 189,369,855 1,034,226,394 1,974,679,178	504,113,878 299,502,200 1,500,986,721 1,805,762,785	<b>40</b> <b>41</b> <b>42</b> <b>43</b>
129,215,157 310,952,138 6,017,032 66,520,490	194,825,612 117,871,254 5,697,224 20,207,319	243,041,530 226,913,763 4,850,071 20,635,718	162,904,586 109,050,542 5,342,172 16,378,301	196,646,340 161,856,075 11,439,191 44,807,353	157,529,350 250,305,507 14,984,287 126,733,077	160,426,359 265,200,441 18,081,882 196,578,113	135,640,729 243,023,370 12,378,066 125,150,839	<b>44</b> <b>45</b>

<sup>9</sup> Estimated on basis of intercensal survey.<sup>10</sup> Includes Newfoundland.<sup>11</sup> Fiscal years prior to 1921.<sup>12</sup> Exports of domestic merchandise only.<sup>13</sup> Imports of merchandise for home consumption.<sup>14</sup> Fiscal

years 1921 and prior years; calendar years 1931-48.

## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

	Item	1871	1881	1891	1901	1911
<b>Foreign Trade—concluded</b>						
<b>EXPORTS, DOMESTIC, BY CHIEF ITEMS</b>						
<b>—concluded<sup>2</sup></b>						
1	Oats..... bu.	42,336	2,926,532	260,569	8,155,063	5,431,64
	\$	231,227	1,191,873	129,917	2,490,521	2,144,8
2	Hay..... ton	23,487	168,381	65,083	252,977	326,1
	\$	290,217	1,813,208	559,489	2,097,882	2,723,2
3	Bacon, hams, shoulders and sides..... cwt.	103,444	103,547	75,542	1,055,495	598,7
	\$	1,018,918	758,334	628,469	11,778,446	8,526,4
4	Butter..... lb.	15,439,266	17,649,491	3,768,101	16,335,528	3,142,6
	\$	3,065,234	3,573,034	602,175	3,295,663	744,2
5	Cheese..... lb.	8,271,439	49,255,523	106,202,140	195,926,397	181,895,7
	\$	1,109,906	5,510,443	9,508,800	20,696,951	20,739,5
6	Silver..... oz.	595,261	34,494	238,367	4,022,019	33,731,0
	\$	6,246,000	39,604,000	10,994,498	26,345,776	55,005,3
7	Copper <sup>3</sup> ..... lb.	120,121	150,412	505,196	2,659,261	5,575,07
	\$	..	..	5,352,043	9,537,558	34,767,52
8	Nickel..... lb.	..	..	240,499	958,365	3,842,33
	\$	318,287	420,055	833,684	1,888,538	2,315,17
9	Coal..... ton	662,451	1,123,091	2,916,465	5,307,060	6,014,09
	\$	..	..	7,022	26,715	69,82
10	Asbestos..... ton	..	..	513,909	864,573	2,076,47
	\$	..	..	..	..	6,588,65
11	Wood-pulp..... cwt.	..	..	280,619	1,937,207	5,715,53
	\$	..	..	..	..	..
12	Newsprint paper..... cwt.	..	..	..	..	3,092,43
	\$	..	..	..	..	..
<b>EXPORTS, DOMESTIC, BY CLASSES—<sup>2</sup></b>						
13	Vegetable products (except chemicals, fibres and wood)..... \$	..	..	13,742,557	25,541,567	84,368,42
14	Animals and their products (except chemicals and fibres)..... \$	..	..	36,399,140	68,465,332	69,693,26
15	Fibres, textiles and textile products..... \$	..	..	872,628	1,880,539	1,818,93
16	Wood, wood products and paper.. \$	..	..	25,351,085	33,099,915	56,334,69
17	Iron and its products..... \$	..	..	556,527	3,778,897	9,884,34
18	Non-ferrous metals and their products..... \$	..	..	1,618,955	33,395,096	34,000,99
19	Non-metallic minerals and their products (except chemicals)... \$	..	..	3,988,584	7,356,444	10,038,49
20	Chemicals and allied products... \$	..	..	851,211	791,855	3,088,84
21	All other commodities..... \$	..	..	5,291,051	3,121,741	5,088,56
	Totals, Exports, Domestic.... \$	57,630,024	83,944,701	88,671,738	177,431,386	274,316,553
<b>IMPORTS FOR CONSUMPTION—<sup>2</sup></b>						
22	Vegetable products (except chemicals, fibres and wood)..... \$	..	..	24,212,140	38,036,146	79,214,041
23	Animals and their products (except chemicals and fibres)..... \$	..	..	8,080,862	14,022,896	30,671,908
24	Fibres, textiles and textile products..... \$	..	..	28,670,141	37,284,752	87,916,282
25	Wood, wood products and paper.. \$	..	..	5,203,490	8,196,901	26,851,936
26	Iron and its products..... \$	..	..	15,142,615	29,955,936	91,968,180
27	Non-ferrous metals and their products..... \$	..	..	3,810,626	7,167,318	27,579,572
28	Non-metallic minerals and their products (except chemicals)... \$	..	..	14,139,024	21,255,403	53,430,475
29	Chemicals and allied products... \$	..	..	3,687,810	5,684,999	12,471,730
30	All other commodities..... \$	..	..	8,577,246	16,326,568	42,620,479
	Totals, Imports..... \$	84,214,388	90,488,329	111,533,954	177,930,919	452,724,603
<b>Federal Finance—</b>						
31	Customs revenues..... \$	11,841,105	18,406,092	23,305,218	28,293,930	71,838,080
32	Excise revenues..... \$	4,295,945	5,343,022	6,914,850	10,318,266	16,869,837
33	War-tax revenues..... \$	..	..	..	..	..
34	Income tax..... \$	..	..	..	..	..
35	Sales tax (Net)..... \$	..	..	..	..	..
36	Total receipts from taxation..... \$	16,320,369	23,942,139	30,220,068	38,612,196	88,707,926
37	Per capita receipts from taxes..... \$	4.42	5.54	6.25	7.19	12.31
38	Total revenues..... \$	19,335,561	29,635,298	38,579,311	52,514,701	117,780,409
39	Revenues per capita..... \$	5.24	6.85	7.98	9.78	16.34
40	Total expenditures..... \$	19,293,478	33,796,643	40,793,208	57,982,866	122,861,250

<sup>1</sup> Figures are subject to revision.  
fine, contained in ore, matte, regulus, etc.<sup>2</sup> Fiscal years 1921 and prior years; calendar years 1931-48.<sup>3</sup> Copper,

## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

1921	1931	1936	1939	1941	1946	1947	1948 <sup>1</sup>	
14,321,048	11,177,072	8,488,040	12,115,598	7,691,664	30,243,197	12,834,904	25,345,036	1
14,152,033	3,767,918	3,136,891	4,142,375	3,295,148	23,108,066	12,388,641	22,559,860	
179,398	89,056	127,996	94,191	33,412	208,076	167,246	135,813	2
4,210,594	839,278	989,557	773,782	391,605	3,318,492	3,131,256	2,904,416	
982,338	127,752	1,580,496	1,878,251	4,646,140	2,892,916	2,357,892	2,047,307	3
31,492,407	2,035,382	25,957,012	32,656,049	77,494,498	66,388,591	62,081,160	69,960,452	
9,739,414	10,680,500	5,128,800	12,398,600	1,481,800	4,509,400	3,107,100	882,200	4
5,128,831	2,329,853	1,178,916	2,673,765	493,525	2,003,302	1,597,095	625,212	
133,620,340	84,788,400	81,890,300	90,944,800	92,331,000	106,495,400	55,531,100	39,827,400	5
37,146,722	10,594,917	11,347,125	12,248,650	13,554,911	21,947,738	14,162,303	12,042,200	
13,331,050	18,666,367	16,340,875	21,030,580	17,235,320	4,180,506	10,236,634	8,729,055	6
11,127,432	5,399,259	7,283,547	8,525,173	6,585,443	3,490,421	7,427,799	6,460,127	
36,167,900	48,761,200	45,519,600	121,500,900	95,538,700	35,255,800	58,187,500	57,111,500	7
4,336,972	3,891,045	2,971,042	8,505,064	6,687,709	2,467,906	9,310,000	9,137,840	
47,018,300	60,420,300	168,316,400	229,930,400	275,190,300	223,877,200	234,114,000	263,679,700	8
9,405,291	13,188,928	42,987,140	56,522,602	67,679,708	55,204,632	60,442,762	73,801,871	
2,277,202	359,853	411,574	376,203	531,449	862,489	714,549	1,273,262	9
16,501,478	1,909,922	1,792,584	1,666,934	2,596,626	5,946,224	5,440,788	11,555,985	
154,152	70,903	136,547	186,238	220,255	215,872	224,646	237,949	10
12,255,793	3,929,317	7,391,517	12,463,177	18,550,435	16,509,480	20,720,683	26,109,381	
14,363,006	12,450,741	15,089,928	14,110,308	28,234,485	28,371,158	33,974,242	35,959,964	11
71,552,037	30,056,643	31,246,695	31,000,602	85,897,736	114,020,659	177,802,612	211,564,384	
15,112,586	40,164,815	59,861,787	53,174,453	65,240,248	77,169,338	84,415,576	86,561,671	12
78,922,137	107,233,112	103,639,634	115,687,288	154,356,543	265,864,969	342,293,158	383,122,743	
482,140,444	209,760,786	346,980,652	220,118,056	285,708,739	578,487,716	683,696,775	643,697,863	13
188,359,937	70,938,351	124,694,815	131,803,706	201,730,555	358,472,794	331,444,683	434,924,502	14
18,783,884	5,394,084	12,227,387	14,427,669	30,819,633	53,759,827	49,347,319	45,553,909	15
284,561,471	185,493,491	210,206,707	242,541,043	387,113,232	625,591,155	886,192,034	953,674,527	16
76,500,748	19,086,492	52,303,878	63,102,432	239,900,848	227,472,926	279,156,202	281,464,706	17
45,939,377	56,158,939	134,436,740	182,890,103	244,012,336	247,810,065	303,937,240	395,948,211	18
40,345,345	14,976,873	23,974,191	29,332,099	45,172,085	57,360,525	74,614,188	94,014,548	19
20,142,826	10,848,946	17,749,628	24,263,342	58,676,338	67,588,719	83,803,909	79,840,351	20
32,389,669	14,995,478	15,250,935	16,447,654	127,869,409	95,671,574	88,710,005	145,420,855	21
1,189,163,701	587,653,440	937,824,933	924,926,104	1,621,003,175	2,312,215,301	2,774,902,355	3,075,438,085	
259,431,110	134,433,268	126,245,938	127,835,146	171,835,408	310,752,921	356,277,546	349,919,261	22
61,722,390	28,629,914	25,845,624	32,757,666	34,845,584	64,237,006	86,909,165	84,701,655	23
243,608,342	90,151,516	98,915,100	100,866,078	161,138,512	264,120,526	390,589,069	350,619,180	24
57,449,384	34,923,391	27,099,785	33,703,149	36,739,071	69,623,406	89,548,171	73,729,968	25
245,625,703	116,209,368	135,359,104	183,159,650	431,622,365	491,068,506	762,358,997	782,255,184	26
55,651,319	38,666,648	35,040,115	42,108,374	94,758,269	120,281,405	160,925,958	155,811,967	27
206,095,113	106,087,909	115,497,181	132,823,892	189,953,788	332,611,081	452,197,951	606,182,256	28
37,887,449	31,336,994	31,971,047	43,705,905	65,382,196	92,874,113	113,084,704	118,379,821	29
72,688,072	47,659,378	39,216,950	54,095,674	262,516,457	181,710,438	162,052,564	115,346,060	30
1,240,158,882	628,098,386	635,190,844	751,055,534	1,448,791,650	1,927,279,402	2,573,944,125	2,636,945,352	
163,266,804	131,208,955	74,004,560	78,751,111	130,757,011	128,876,811	237,355,397	293,012,027	31
37,118,367	57,746,808	44,409,797	51,313,658	88,607,559	186,726,318	196,043,816	196,794,208	32
168,385,327	107,320,633	197,484,627	305,642,025	558,175,014	1,864,556,332	1,969,996,383	1,930,829,070	33
46,381,824	71,048,022	82,709,803	142,026,138	220,471,004	932,259,273	939,458,244	1,059,848,357	34
38,114,539	20,783,944	77,551,974	122,139,067	179,701,224	212,247,444 <sup>r</sup>	298,227,867 <sup>r</sup>	372,329,205	35
368,770,498	296,276,396	317,311,809	435,706,794	778,175,450	2,202,358,387	2,427,661,313	2,452,075,395	36
41-96	28-55	28-98	38-51	67-63	178-95	192-95	190-33	37
436,292,185	356,160,876	372,595,996	502,171,354	872,169,645	3,013,185,074	3,007,876,313	2,871,746,110	38
49-64	34-32	33-79	44-38	75-80	244-84	239-06	222-91	39
528,302,513	440,008,855	532,585,555	553,063,098	1,249,601,446	5,136,228,506	2,634,227,412	2,195,626,454	40



## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

	Item	1871	1881	1891	1901	1911
<b>Federal Finance—concluded</b>						
1	Expenditures per capita.....	\$ 5.23	7.82	8.44	10.79	17.0
2	Gross debt.....	\$ 115,492,683	199,861,537	289,899,230	354,732,433	474,941,48
3	Assets.....	\$ 37,786,165	44,465,757	52,090,199	86,252,429	134,899,43
4	Net debt.....	\$ 77,706,518	155,395,780	237,809,031	268,480,004	340,042,05
<b>Provincial Finance—</b>						
5	Revenue, ordinary, totals.....	\$ 5,518,946	7,858,698	10,693,815	14,074,991	40,706,94
6	Expenditure, ordinary, totals.....	\$ 4,935,008	8,119,701	11,628,353	14,146,059	38,144,51
<b>Note Circulation—</b>						
7	Bank notes.....	\$ 20,914,637	28,516,692	33,061,042	50,601,205	89,982,22
8	Dom., Bank of Canada and other notes <sup>4</sup> .....	\$ 7,244,341	14,539,795	16,176,316	27,898,509	99,308,94
<b>Chartered Banks—</b>						
9	Capital, paid-up.....	\$ 37,095,340	59,534,977	60,700,697	67,035,615	103,009,25
10	Assets.....	\$ 125,273,631	200,613,879	269,307,032	531,829,324	1,303,131,26
11	Liabilities to the public.....	\$ 80,250,974	127,176,249	187,332,325	420,003,743	1,097,661,39
12	Deposits payable on demand.....	\$ ..	..	..	95,169,631	304,801,75
13	Deposits payable after notice.....	\$ ..	..	..	221,624,664	568,976,20
14	Totals, Deposits <sup>4,5</sup> .....	\$ 56,287,391	94,346,481	148,396,968	349,573,327	980,433,78
15	Bank debits.....	\$ '000 ..	..	..	..	..
<b>Savings Banks—</b>						
16	Deposits in Post Office.....	\$ 2,497,260	6,208,227	21,738,648	39,950,813	43,330,57
17	Deposits in Government banks.....	\$ 2,072,037	9,628,445	17,661,378	16,098,146	14,673,75
18	Deposits in special banks.....	\$ 5,766,712	7,685,888	10,982,232	19,125,097	34,770,38
<b>Loan Companies (Dominion)—</b>						
19	Assets.....	\$ 8,392,464	73,906,638	125,041,146	158,523,307	389,701,988
20	Liabilities.....	\$ 8,392,958	71,965,017	123,915,704	158,523,307	389,701,988
<b>Small Loans Companies (Dominion)—</b>						
21	Assets.....	\$ ..	..	..	..	..
22	Liabilities.....	\$ ..	..	..	..	..
<b>Loan Companies (Provincial)—</b>						
23	Assets.....	\$ ..	..	..	..	..
24	Liabilities.....	\$ ..	..	..	..	..
<b>Trust Companies (Dominion)—</b>						
ASSETS—						
25	Company funds.....	\$ ..	..	..	..	..
26	Guaranteed funds.....	\$ ..	..	..	..	..
LIABILITIES—						
27	Company funds.....	\$ ..	..	..	..	..
28	Guaranteed funds.....	\$ ..	..	..	..	..
29	ESTATES, TRUST AND AGENCY FUNDS.....	\$ ..	..	..	..	..
<b>Trust Companies (Provincial)—<sup>10</sup></b>						
ASSETS—						
30	Company funds (par value).....	\$ ..	..	..	..	..
31	Guaranteed funds (par value).....	\$ ..	..	..	..	..
32	ESTATES, TRUST AND AGENCY FUNDS.....	\$ ..	..	..	..	..
<b>Dominion Fire Insurance—</b>						
33	Amounts at risk, Dec. 31.....	\$ 228,453,784	462,210,968	759,602,191	1,038,687,619	2,279,868,346
34	Premium income for each year....	\$ 2,321,716	3,827,116	6,168,716	9,650,348	20,575,255
35	Claims paid during each year.....	\$ 1,549,199	3,169,824	3,905,697	6,774,956	10,936,948
<b>Provincial Fire Insurance—</b>						
36	Amounts at risk, Dec. 31.....	\$ ..	..	..	..	..
37	Premium income for each year....	\$ ..	..	..	..	..
38	Claims paid during each year.....	\$ ..	..	..	..	..
<b>Dominion Life Insurance—<sup>11</sup></b>						
39	Amounts at risk, Dec. 31.....	\$ 45,825,935	103,290,932	261,475,229	463,769,034	950,220,771
40	Premium income for each year....	\$ 1,852,974	3,094,689	8,417,702	15,189,854	31,619,626
41	Net amounts of policies become claims during each year.....	\$ ..	..	..	7,182,358	11,434,901
<b>Provincial Life Insurance—</b>						
42	Amounts at risk, Dec. 31.....	\$ ..	..	..	..	..
43	Premium income for each year....	\$ ..	..	..	..	..
44	Net amounts of policies become claims during each year.....	\$ ..	..	..	..	..

<sup>1</sup> Figures are subject to revision.<sup>2</sup> Active assets only.<sup>3</sup> Fiscal year ended nearest Dec. 31 of the year stated.<sup>4</sup> As at June 30 from 1871 to 1901. Monthly averages from 1911 to 1948.<sup>5</sup> Including amounts deposited elsewhere than in Canada from 1901.<sup>6</sup> Figures are for 1924, the first year for which bank debits are available.<sup>7</sup> Included in Post Office Savings Banks.<sup>8</sup> 1922 figures; first year provincial

## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—concluded

1921	1931	1936	1939	1941	1946	1947	1948 <sup>1</sup>	
60-11	42-41	48-29	48-88	108-60	417-34	209-36	170-43	1
2,902,482,117	2,610,265,699	3,431,944,027	3,638,320,816	5,018,928,037	18,959,846,183	17,698,195,740	17,197,348,981	2
561,603,133 <sup>2</sup>	348,653,762 <sup>2</sup>	425,843,510 <sup>2</sup>	485,761,502 <sup>2</sup>	1,370,236,588 <sup>2</sup>	5,538,440,734 <sup>2</sup>	4,650,439,192 <sup>2</sup>	4,825,712,088 <sup>2</sup>	3
2,340,878,984	2,261,611,937	3,006,100,517	3,152,559,314	3,648,691,449	13,421,405,449	13,047,756,548	12,371,636,893	4
102,030,458	179,143,480	232,616,182	296,836,927	404,791,000 <sup>3</sup>	592,605,000 <sup>3</sup>	..	..	5
102,569,515	190,754,202	248,141,808	289,467,574	349,818,000 <sup>3</sup>	518,175,000 <sup>3</sup>	..	..	6
194,621,710	128,881,241	112,914,641	88,820,636	78,761,049	23,172,717	19,675,994	17,109,071	7
271,531,162	153,079,362	105,275,223	184,904,919	406,433,409	1,125,986,281	1,161,855,271	1,219,372,176	8
129,096,339	144,674,853	145,500,000	145,500,000	145,500,000	145,500,000	145,500,000	145,500,000	9
2,841,782,079	3,066,018,472	3,144,506,755	3,591,564,586	4,008,381,256	7,429,608,029	7,810,913,975	8,140,145,708	10
2,556,454,190	2,741,554,219	2,855,622,232	3,298,351,099	3,711,870,680	7,123,979,417	7,476,627,449	7,798,910,335	11
551,914,643	578,604,394	618,340,561	741,733,241	1,088,198,370	2,155,312,749	2,138,771,178	2,258,658,693	12
1,289,347,063	1,437,976,832	1,518,216,945	1,699,224,304	1,616,129,007	3,327,057,442	3,681,231,057	3,972,159,586	13
2,264,586,736	2,422,834,828	2,614,895,597	3,060,859,111	3,464,781,844	6,771,555,153	7,075,355,884	7,402,776,952	14
27,157,474 <sup>4</sup>	31,586,468	35,928,607	31,617,352	39,242,957	69,247,607	74,498,093	80,687,448	15
29,010,619	24,750,227	22,047,287	23,045,576	22,176,633	35,537,154	35,764,512	36,226,060	16
10,150,189	69,820,422	69,665,415	81,566,754	76,391,775	140,584,525	153,137,545	170,103,786	17
58,576,775	..	..	..	..	..	..	..	18
96,698,810	147,094,183	137,210,511	136,358,786	130,795,391	145,016,997	155,117,857	..	19
95,281,122	146,046,087	137,199,814	136,351,602	130,787,116	145,016,997	155,117,857	..	20
..	827,373	4,392,390	5,466,679	7,918,926	24,917,469	32,643,343	..	21
..	823,120	4,361,126	5,424,047	7,918,926	24,917,469	32,643,343	..	22
86,144,153 <sup>5</sup>	65,728,238	58,909,744	58,526,904	58,220,073	70,345,417	76,008,059	..	23
87,385,807 <sup>5</sup>	66,387,987	58,762,522	58,533,671	58,220,073	70,345,417	76,008,059	..	24
10,237,930 <sup>9</sup>	15,459,347	16,374,558	20,176,418	20,596,781	23,699,397	23,421,857	..	25
8,774,185 <sup>9</sup>	25,718,219	35,456,607	36,001,000	38,570,855	62,184,103	71,660,445	..	26
9,907,331 <sup>9</sup>	15,066,431	15,878,061	19,351,839	20,086,776	23,339,787	23,191,686	..	27
8,549,642 <sup>9</sup>	25,718,221	35,456,607	36,001,000	38,570,855	62,184,103	71,660,444	..	28
79,252,639 <sup>9</sup>	215,698,469	226,024,454	242,369,850	268,596,524	392,430,578	480,931,822	..	29
31,418,403 <sup>9</sup>	66,338,148	63,770,447	61,292,364	58,165,471	65,268,327	66,212,491	..	30
32,885,302 <sup>9</sup>	125,829,165	121,986,843	114,606,960	108,912,208	154,216,706	171,642,223	..	31
629,953,917 <sup>9</sup>	1,961,948,175	2,311,906,898	2,422,219,901	2,418,950,841	2,758,442,016	2,735,930,892	..	32
6,020,513,832	9,544,641,293	9,248,273,260	10,200,346,551	11,386,819,286	17,376,429,865	19,926,683,282 <sup>1</sup>	23,021,215,478	33
47,312,564	50,342,669	40,218,296	40,984,276	49,305,539	68,825,470	86,774,952 <sup>1</sup>	98,191,514	34
27,572,560	29,938,409	14,072,237	15,738,902	17,814,322	35,379,627	39,513,014 <sup>1</sup>	45,143,565	35
1,269,764,435	1,341,184,333	1,184,852,046	1,284,998,454	1,120,181,968	1,699,550,230	1,969,751,928	2,098,163,099	36
5,545,549	7,185,066	5,092,663	5,750,302	3,992,765	7,354,491	8,487,976	9,147,876	37
3,544,820	4,985,605	2,190,624	3,170,597	2,237,832	3,889,185	4,181,348	5,147,547	38
2,934,843,848	6,622,267,793	6,403,037,477	6,776,262,587	7,348,550,742	10,812,392,864	11,900,258,220 <sup>1</sup>	13,105,352,888	39
98,864,371	225,100,571	200,541,265	198,042,144	203,459,238	283,938,079	304,487,376	326,512,650	40
24,014,465	54,410,589	58,086,634	73,936,661	75,082,008	98,846,258	102,244,849	109,327,224	41
222,871,178	202,094,301	130,044,228	134,554,434	164,451,218	429,336,354	489,191,889	548,304,148	42
4,389,008	5,178,615	3,025,124	3,491,402	3,988,952	10,347,658	11,157,949	12,174,503	43
2,812,077	2,603,453	2,195,537	3,178,604	2,583,958	3,813,245	3,636,276	4,645,107	44

figures made available by the Department of Insurance. <sup>9</sup> Prior to 1920 figures are not comparable.  
<sup>10</sup> Compiled from data supplied voluntarily to the Superintendent of Insurance by provincial companies but estimated to cover about 90 p.c. of all provincial business. The figures include all the large and most of the small provincial companies.  
<sup>11</sup> Not including fraternal insurance.



## INTRODUCTION\*

A detailed review of the post-war period up to 1949 will be found in the 1948-49 Year Book at pp. xxix-xliii, where general economic developments are discussed, and at pp. 1113-1125, where the more strictly post-war reconstruction efforts are considered. The present review is confined largely to the economic developments of 1949 and early 1950.

The outstanding developments of this period were: the union of Newfoundland and Canada on Mar. 31, 1949, devaluation and the fact that the Canadian economy was able to maintain economic stability even with a moderate recession in the United States commencing in the autumn of 1948 and reaching a low point in mid-1949, and increasing trade difficulties overseas. These and other important developments of the past year are dealt with under the following broad headings: (1) economic developments during 1948-50; (2) economic policies and administration; and (3) federal-provincial economic relations.

### **Economic Developments During 1948-50†**

Canada's gross national product reached a new peak in 1949. The preliminary estimate is \$15,950,000,000, an increase in value terms of 3 p.c. and in volume terms of 2 p.c. over 1948. The labour force contained little over 5,100,000 persons, of whom fewer than 135,000 were unemployed and fewer than 45,000 were in the Armed Services. Compared with 1939, gross national product had increased by about 185 p.c. in value terms and 70 p.c. in volume terms while the labour force had increased by about 15 p.c. (and the employed segment of it by about 30 p.c.) and the population had increased by about 17 p.c. Roughly, this would indicate an increase in per-year output per employed person of about 30 p.c., and in real per-capita consumer expenditures of about 50 p.c.

The outlook for 1950, in the early months of the year, was for a further small increase in gross national product over the 1949 level, probably about 2 p.c. The principal factors contributing to the increase would be a higher level of private investment and of consumer and government expenditures. On the other hand, some reduction in export demand was expected, the loss occurring principally in the sterling-area market. The indicated increase in gross national product, when account is taken of increasing levels of productivity, would result in little change in the level of employment. Some increase in unemployment is, therefore, to be expected in 1950. The reduction of certain types of exports and some increase in unemployment would result in an increased number of industrial and associated area problems.

Of the various income claimants on the gross national product in 1949, the only group whose share increased substantially over 1948 was the salary- and wage-earner, an increase of about 7 p.c. Net income from unincorporated non-agricultural business was little changed. With respect to investment income, preliminary estimates indicate a moderate reduction in corporate profits and some increase in dividends, interest and rent. In agriculture, retroactive grain payments totalling over \$200,000,000 largely offset losses sustained through poorer crop yields and some

\*Prepared by the Economic Research and Development Branch, Department of Trade and Commerce.

†Newfoundland is excluded from these analyses but is dealt with briefly at p. xi.



softening of prices so that the net income of farm operators declined by only about 4 p.c. The net national income of these four groups of claimants increased by 4 p.c. between 1948 and 1949 while personal income realized out of national income and government transfer payments to individuals (family allowances, unemployment insurance benefits, etc.) increased by 5 p.c.

**Foreign Trade.**—Canada's commodity exports reached a peak in 1948 at about \$3,100,000,000, the principal supports to this high level of trade being prosperity in the United States and the heavy reconstruction and relief needs of Western Europe, the latter made in some considerable part effective by extensive financial aid from the United States and Canada. Commodity exports dropped to \$3,000,000,000 in 1949 or by 3 p.c. in value terms and 5 p.c. in volume terms. The principal causes of the decrease were that the recovery of European production reduced emergency demands and continuing foreign exchange difficulties limited purchases in Canada. In spite of a recessionary movement starting in 1948 and continuing into 1949 in the United States, the value of commodity exports to that country remained unchanged from the 1948 level of \$1,500,000,000. Exports to the United Kingdom increased a little to \$700,000,000 while exports to the rest of the world were over 10 p.c. lower at \$800,000,000.

The value of exports of most agricultural products were lower, with lower prices and lower volume both contributing causes. The total value and volume of agricultural exports were higher, however, as a result of a substantial increase in exports of wheat. Exports of timber, pulpwood, wood-pulp and most types of paper were lower, but the loss in the wood-product exports was partly offset by an increase of over 10 p.c. in exports of newsprint. The strongest part of the export market, in spite of some significant downward revisions in prices early in 1949, was the primary and semi-processed metals and minerals, where a gain in value of exports of about 7 p.c. occurred. The metals contributing to the gain were copper, lead, nickel, zinc and iron ore. Losses were general in manufactured goods, but the exports of the iron and steel group were sustained by larger exports of locomotives, railway rolling-stock and farm implements.

Unlike merchandise exports, merchandise imports continued to rise in 1949, to reach a level of \$2,760,000,000, an increase of 5 p.c. in value and 2 p.c. in volume from 1948. The gains were registered in wood and paper products, iron products, non-ferrous metal products, chemical products and agricultural and related primary products. Imports of non-metallic mineral products and fibres and textiles were lower.

In the field of services (tourist expenditures, shipping charges, interest and dividends, etc.), preliminary estimates indicate that exports decreased slightly and imports were little changed from 1948. When these are added to commodity exports and imports, respectively, total exports of goods and services were close to \$4,000,000,000 in 1949, a decrease of about 2 p.c. from the preceding year, and total imports were a little more than \$3,800,000,000, an increase of about 5 p.c.

In September, 1949, there was a world-wide downward adjustment of the value of national currencies in terms of the United States dollar. This adjustment came too late in the year to affect significantly Canada's external trade. Its probable effect in 1950, in part notable early in the year but probably more marked later in the year, would be to reduce further Canada's exports to the non-dollar area and encourage imports from that area, since most of the countries involved

devalued more than Canada. On the other hand, Canada's own devaluation was expected to increase the value of exports to the United States—in fact taking place early in 1950—and discourage imports from that country. The general effect of such developments, if realized in any substantial degree, would be to ease Canada's balance of payments position.

**Investment and Resources Development.**—The most important single dynamic influence contributing to a rising level of economic activity in Canada in the post-war period has been investment in durable physical assets, such as plants and office buildings, machinery and equipment, schools and roads and residential housing. This investment amounted to \$3,400,000,000 in 1949, an increase over 1948 of 9 p.c. in value terms and 4 p.c. in volume terms. Private investment increased from \$2,365,000,000 to \$2,490,000,000 between the two years, or by 5 p.c., and the investment of Federal, Provincial and municipal governments from \$785,000,000 to \$940,000,000, or by 20 p.c. Investment in construction of all kinds increased by over 10 p.c. to nearly \$2,100,000,000, and machinery and equipment investment by 5 p.c. to \$1,350,000,000.

By broad groups, total investment increased during 1949 as follows: institutional services (schools, hospitals, etc.), 36 p.c.; mining, 27 p.c.; finance, insurance and real estate, 21 p.c.; utilities, housing and direct government, each by 17 p.c.; and agriculture and fishing, 13 p.c. It decreased in wholesale and retail trade by 5 p.c.; manufacturing, 10 p.c.; commercial service, 26 p.c.; construction, 29 p.c.; and forestry, 32 p.c.

The largest absolute increases in investment occurred in the housing and utility fields, each by approximately \$100,000,000. Some 91,000 housing units were completed and 93,000 units started in 1949, and the value of work put in place was close to \$800,000,000. This was almost one-quarter of all construction investment. The further development of water-power resources was the most important part of investment in the utilities field in 1949. Some 400,000 h.p. of hydro-generating capacity was installed in 1948 and 475,000 h.p. in 1949. Projects in hand at the end of 1949 would augment capacity by another 2,400,000 h.p. Principal additions to steam-generating capacity were 38,000 k.w. in 1948 and 115,000 k.w. in 1949, while some 500,000 k.w. are projected. Total investment of the electric-power industry in 1949 was close to \$300,000,000. A treaty was signed in February, 1950, between Canada and the United States for an increased diversion of water to hydro-electric purposes at Niagara Falls. This will permit the construction of new power plants on the Canadian side of the Niagara River to replace a number of existing plants that cannot make the most effective use of the available water.

Other important fields of resource development were related to mining. The most outstanding during 1949 was the bringing in of oil wells and the proving up of reserves of oil in Alberta. To the 226 producing wells in existence at the end of 1947 in Alberta, 273 were added in 1948 and another 565 in 1949. Proved reserves at the end of 1949 were estimated at 1,300,000,000 barrels. This development has also been accompanied by the bringing in of additional natural gas wells and the proving up of additional reserves of natural gas. The establishment of Western Canada as a major oil producer has necessitated increased investment in petroleum processing and distributing facilities. Oil refinery capacity in Canada increased from 300,000 barrels per day in 1948 to 335,000 barrels per day in 1949,

and an additional 38,000 barrels per day is expected to be installed before the end of 1951. Starting in 1950 an oil pipe line will be laid from Edmonton to Superior, Wisconsin, a distance of 1,150 miles; this will widen the field of distribution of western oil.

Important iron-ore fields are being developed. Operations at Michipicoten, Ont., are being enlarged and exploration extended. At Steep Rock, Ont., a second ore-body is expected to be brought into production in 1951, and a third deposit, larger than either of the two now being developed, was discovered in 1949. On the Quebec-Labrador boundary approximately 350-400 miles north of the Gulf of St. Lawrence, exploration has established a field of over 350,000,000 gross tons of ore, largely of Bessemer grade, and the presence of manganese ore. Bringing this field into production will take a number of years and a large investment, since it will be necessary to build a railway inland from the Gulf.

A smaller but nevertheless important resource development is taking place at Allard Lake, Que., where a 27-mile railway is being built and a plant established to mine ilmenite ore for processing at Sorel, Que., to obtain titanium oxide slag and pig iron. An asbestos ore-body in northern Ontario is also being developed and is expected to be in production soon.

If investment intentions of business, home-buyers, institutions and governments are realized, the level of investment in 1950 will exceed that of 1949 by 5 p.c. and will probably amount to \$3,600,000,000. The indications are that larger capital expenditures will be made by the utility industries, the finance, insurance and real estate industries, the commercial service industries, the mining industries, the institutional services and in direct outlays of governments; that expenditures on housing and trade will remain unchanged; and that expenditures of the manufacturing industries, agriculture and fishing, forestry and construction industries will be lower.\*

**Consumer Expenditures.**—Consumer spending in 1949 stood at \$10,750,000,000, nearly 7 p.c. higher in value terms and 2.5 p.c. higher in volume terms than in 1948. Among the factors contributing to the increase were a 5 p.c. rise in personal income, referred to earlier, reduction in personal income taxes, payment of the refundable portion of wartime income taxes and a somewhat lower rate of personal savings. Although the rate of these savings dropped, the amount saved remained fairly steady at a little less than \$1,000,000,000 in both 1948 and 1949.

The largest increase in consumer expenditures was on durable goods like automobiles, furniture and household appliances. Expenditures on services, such as household operations and utilities, maintenance of automobiles, etc., were also higher. Expenditures on perishable goods, mostly food, increased only slightly and expenditures on semi-durable goods, mostly clothing, decreased slightly in volume terms.

**Government Expenditures.**—Government expenditures on goods and services (i.e., excluding subsidies and transfer payments to individuals and between governments) at \$2,100,000,000 increased more than any other group of expenditure in 1949 over 1948, the increase being 18 p.c. in value terms and 11 p.c. in volume

\**Private and Public Investment in Canada Outlook 1950*, published by the Economic Research and Development Branch, Department of Trade and Commerce.



terms. It has been noted under the heading on investment, p. xxxii, that public investment in durable physical assets increased by 20 p.c. The increase in the non-investment expenditures of governments was around 17 p.c. Total Federal Government expenditures on goods and services increased by over 30 p.c., and provincial and municipal expenditures by a little more than 10 p.c.

**Changing Influences in the Domestic Economy.**—Domestic demand was strong enough to more than offset a moderate weakness in export demand, with the result that no recessionary movement occurred such as developed in the United States in 1948-49. Domestic demand was also sufficiently pervasive that most industries, including many with important export markets, were able to maintain their volume of production at or increase it above the 1948 level. The aggregate demand, on the other hand, was not strong enough to bring about a continued substantial rise in prices. Nor was it strong enough to provide employment for all additional entrants to the labour force.

These influences became more evident in the last half of the year. The industry most adversely affected was forestry. Its level of operations declined substantially, partly as a result of efforts of pulp and paper mills to reduce pulpwood inventories and partly as a result of caution in the face of uncertainties in the export market. In the last quarter of the year, unfavourable weather conditions further reduced levels of operations in the woods. Consequently, the forest areas of the Maritimes, Quebec, Ontario and British Columbia witnessed high levels of unemployment in the winter of 1949-50. A weakening export demand for most agricultural products and some fish products during the year did not have an immediate effect on the level of activity of these industries but did affect the cash income of farmers and fishermen. Failure of domestic demand to offset reduced export demand also resulted in somewhat lower levels of operations in such manufacturing industries as shipbuilding, machine tools, wool textiles, leather, rubber and some branches of food processing. A reduced volume of exports also had an adverse effect on the transportation industries, the unemployment consequences of which were most evident in the Coastal Provinces. With these notable exceptions, however, most industries were able to maintain or expand production.

The fairly stable level of prices in 1949 in the face of falling prices in the United States is to be accounted for partly by the gradual removal of price controls, which kept Canadian prices below United States prices earlier, and partly by strong domestic demand. Wholesale prices on the whole were weakening in the first three-quarters of the year and increased briefly but fairly sharply immediately after devaluation in September. Consumer goods prices, as measured by cost-of-living indices, increased until after mid-year and then turned down to end the year only about 2 p.c. higher than at the first of the year.

### **Economic Policies and Administration**

Federal Government action during 1949 to assist Canadian producers and consumers to maintain a high level of economic activity can be conveniently classified into (1) direct action in the economic sphere to bolster foreign trade and domestic demand or assist some group in the community to cope with special types of problems; and (2) changes in the Government's administration so as to adapt it to handle economic problems more effectively. The highlights of these two aspects of the Federal Government's activities in 1949 are reviewed in the paragraphs that follow and on p. xl.



**Foreign Trade Measures.**—In seeking to improve Canada's foreign trade position in the unsettled post-war period, it has been necessary to take account of long-run and short-run objectives. The long-run objective has been to foster, with like-minded nations, the development of a high level of international trade on a multilateral basis, thereby attempting to reverse a trend to increasing economic nationalism evident before the War. The short-run objective has been to cushion the Canadian economy against unfavourable external economic influences resulting from the disorganization of war. This has taken two forms—the extending of various kinds of assistance to wartime allies, and the maintaining of the country's economic solvency in a world in which most national currencies were not freely convertible into other currencies.

In pursuit of the long-run objective Canada participated in the continuing work of numerous international organizations and extended her trade connections abroad.

The Conference of the contracting parties to the General Agreement on Tariffs and Trade, held at Annecy, France, from April to September, 1949, was one in which Canada took a leading part. The original 23 contracting parties to the General Agreement carried out tariff negotiations with 11 acceding countries. Although tariff negotiations were carried on between contracting parties and acceding countries only, the application of the most-favoured-nation rule resulted in Canada obtaining a number of important concessions that were not bargained for directly, some of the most important of which were received from other contracting parties.

Concurrently, the contracting parties held their third session and dealt with the practical applications of the general trade provisions which had been drafted at Geneva and at the first and second meetings of the contracting parties. A major task was to establish procedures by which important articles of the General Agreement could be applied, such as the method by which a country should introduce discriminatory measures to further its own industrial development or correct foreign exchange difficulties. The fourth session of the contracting parties to the General Agreement was held at Geneva from Feb. 23 to Apr. 6, 1950. The Conference worked out a method for the extension of General Agreement tariff concessions for a further three-year period and reviewed the trade-restriction effects of foreign exchange practices. It also did the preparatory work for a third set of multilateral tariff negotiations planned to begin at Torquay, England, in September, 1950. At that time, an opportunity will be provided for tariff negotiations not only between contracting parties and five or six other countries that have indicated an intention to accede to the General Agreement, but also among countries which are not contracting parties.

In the opening months of 1949 Canada and 46 other countries participated in a conference which resulted in the drawing up of an International Wheat Agreement. Subsequently, five exporting countries (Canada, the United States, Australia, France and Uruguay) and 36 importing countries signed the Agreement. The Agreement is operative for a four-year period, and calls for the exporting countries to furnish, and importing countries to purchase, a total of approximately 450,000,000 bushels each crop year. The Agreement limits the maximum selling price to \$1.98 per bushel in Canadian dollars and provides a minimum price of \$1.65 in the first year, dropping 11 cents each year to \$1.32 in the final year of the Agreement for No. 1 Northern wheat in store Fort William-Port Arthur or Vancouver. Canada's annual quota was set at approximately 200,000,000 bushels but is subject to change as other countries join the Agreement or importers' quantities are increased.

Canada took an active part in the deliberations of the Food and Agriculture Organization Conference held at Washington in December, 1949. The Conference dealt with means of increasing food production to the pre-war per capita level, of maintaining certain price relations between commodities and export and import prices, etc., for financing agricultural and development projects and for technical assistance to economic development. The Conference also decided to establish a Committee on Commodity Problems rather than establish an international commodity clearing-house proposed by a committee of experts convened to consider how to handle food commodity surpluses.

In keeping with its increasing importance as a world trader, Canada has steadily extended the Foreign Trade Service of the Department of Trade and Commerce in the post-war period. At the end of 1949 there were 56 senior officials and 41 assistants working abroad in 45 offices in 39 countries. During the year trade offices were opened in Istanbul and Manila, and trade officers were attached to the Canadian consulates at Boston and Detroit. Canada has also fostered trade by holding an annual international trade fair and by exhibiting at trade fairs elsewhere. The third Canadian International Trade Fair is being held at Toronto from May 29 to June 9, 1950. During 1949 Canada was an exhibitor at the British Industries Fair, the Milan International Fair and the Junior Chamber of Commerce Fair at Brussels. It also opened a new exhibit in the Canadian Court of the Imperial Institute, London, where it has had a continuous series of exhibits since 1894. Several travel and tourist exhibits also toured a number of United States cities during the year, and dairy exhibits were prepared for dairy expositions in the United States and the United Kingdom.

Canada maintains relations with 49 countries under trade agreements, conventions of commerce and similar arrangements. A number of these are with Commonwealth countries and provide for the exchange of tariff preferences. Of the 49 countries 36 are either members of or have made application to accede to the General Agreement. During 1949, Canada and Austria agreed to exchange most-favoured-nation treatment, while Venezuela failed to renew the *modus vivendi* it signed with Canada in 1941 and Ecuador terminated its *modus vivendi*, also in force since 1941.

In the field of immediate external trade problems, the outstanding development of 1949 and early 1950 was the devaluation in September, 1949, of the Canadian dollar by 10 p.c. in relation to the United States dollar. By doing this Canada made an adjustment to an intermediate position between the United States dollar and the pound sterling. Among the reasons that determined this decision were (1) the desire not to have Canada 'priced out' of important world markets by other countries' devaluation, nor to devalue to such an extent as to prevent many of these countries, such as the United Kingdom, from increasing the level of their exports to Canada so as to earn additional funds with which to buy Canadian exports; and (2) the desire to narrow Canada's own dollar gap with the United States by reducing the price of exports to and increasing the price of imports from that country without at the same time setting up strong new inflationary influences. Behind both sets of reasons was the necessity of protecting Canada's balance of payments position after devaluation, since the level of foreign exchange reserves had not attained a level considered adequate for the country's needs.

Devaluation was preceded by several important inter-government conferences on trade problems. In July meetings were held of Commonwealth Finance Ministers

and of representatives of the United Kingdom, the United States and Canada at London. A further conference of representatives of the three countries just mentioned met at Washington in September. As a result of the latter Conference certain broad principles were laid down, the object of which would be to increase sterling-area exports to the North American continent, thereby helping to close the dollar gap in the external financial position of these countries. One result of this decision has been the establishment of an advisory committee on private overseas investment, composed of 11 business men, to study obstacles which impede the free flow of investment from Canada to overseas countries and the steps that might be taken to eliminate or minimize these obstacles. This committee has a counterpart in the United States in the President's Committee for Financing Foreign Trade.

To help bring about a better balance in its trade with the world's two principal currency areas, the Federal Government has encouraged Canadians to buy sterling-area products and provided assistance to United Kingdom business men to increase their exports to Canada. This has been supplemented by the efforts of private persons. The Dollar-Sterling Trade Board was established in the summer of 1949 to work with the United Kingdom Dollar Export Board in promoting United Kingdom sales in Canada. The Canadian Board is composed of business men, and offers technical advice on the Canadian market to United Kingdom exporters and maintains close liaison with Canadian importers to help them establish contacts with potential United Kingdom suppliers. In January, 1949, a United Kingdom-Canada Continuing Committee on Trade and Economic Affairs was established. The Committee is composed of senior officials of the governments of the two countries. This affords a systematic means of reviewing certain of the problems that arise in joint trade.

As Canada's foreign exchange reserves increased during 1949 and early 1950, it was possible to modify and relax many of the import restrictions imposed under the Emergency Exchange Conservation Act. Among the important changes during 1949 were: the removal from the prohibited import list of such items as meat, poultry, dairy products, miscellaneous foods, cigarettes, oils and greases, lumber and paints; the transfer from the prohibited to the quota list of such items as plumbing fixtures, furniture and hollow-ware; the removal from the quota list of such items as fresh fruits, vegetables, cheese, leather, watches and watch movements; the increasing of quotas by about 25 p.c.; and the increasing of allotments by about 25 p.c. on certain licensed imports of capital and production goods, such as motor-vehicles, ranges, refrigerators, radios and television sets. Two Orders in Council passed in February, 1950, made provision for transferring Switzerland from the list of scheduled to the list of non-scheduled countries and for increasing the textile quota by 10 p.c. on Apr. 1, and for the transfer from the prohibited to the quota list of processed fruits and vegetables and a large number of consumer durable goods on July 1.

When it became necessary to impose import controls in November, 1947, it was also found necessary to 'freeze' the unexhausted portion of the \$1,250,000,000 loan made to the United Kingdom under the Export Credits Insurance Act of 1944. With the improvement of Canada's foreign exchange position, further drawings on this loan at the rate of \$10,000,000 per month were permitted starting in January, 1949.



Canada has maintained commodity and area controls over many exports, to assure supplies of these commodities to the domestic market, to facilitate directing exports to Western European countries under the United States Economic Cooperation Administration program, and for national security reasons. At the end of 1949, 91 items were under export control, 323 had been removed from control during the year, and 11 had been added. Area controls extended to all commodities going to a list of 64 countries. However, to facilitate trade, an open general licence was issued permitting exports to these countries of commodities which Canada was not particularly interested in controlling.

Several international developments in 1949 that may have considerable direct economic significance for Canada in the future are worthy of note. The first was the North Atlantic Treaty, signed in April, 1949. At its second session, in November, 1949, the Council of the North Atlantic Treaty Organization established a Defence Financial and Economic Committee with a permanent working staff of experts located at London. Also in June, 1949, a Joint United States-Canada Industrial Mobilization Planning Committee held its first meeting. The Committee was established to exchange information on problems of mutual interest concerning industrial mobilization planning activities of the two countries. In January, 1950, the first Commonwealth conference on foreign affairs met at Colombo, Ceylon. Although not primarily concerned with economic matters, the Conference established a consultative committee on south and southeast Asia, the primary concern of which is economic development in this region. Arrangements were made for the consultative committee to meet at Sydney, Australia, in May, 1950, with Canada represented. Trade officials were also on the delegation that attended the Colombo Conference and held talks both during and after the Conference with officials in a number of Asiatic countries.

**Domestic Economic Policies.**—An analysis of economic conditions in Canada and abroad early in 1949 indicated a weakening of export prospects and of inflationary pressures. The Federal Government then took steps to offset any serious slackening in demand by reinforcing purchasing power in Canada. The principal means used have already been indicated: personal income tax rates were lowered and exemptions raised, two years payments of the refundable portion of wartime income taxes were paid in one year, indirect taxes on numerous consumer goods and services were reduced, and retroactive grain payments accumulated by the Federal Government in the operation of the four-year United Kingdom wheat contract were disbursed to farmers. Because it was not considered opportune to stimulate increased capital expenditures at a time when the supply of capital goods was tight, no general reductions in corporation taxes were made. Important fiscal measures to encourage resource development were renewed and extended. The Income Tax Act permitted a deduction for income-tax purposes on expenditures on oil, mineral and gas exploration. This was due to expire at the end of 1949 but was extended to the end of 1952. An extra tax credit on expenditures on deep test wells was extended to the end of 1950, and the three-year extension for metal mines was extended to cover mines brought into production during 1950-52. No important tax rate changes were made in the 1950 Budget, but the two above-mentioned extensions of time with respect to oil development were continued for an additional year.

With minor modifications, the Continuation of Transitional Measures Act, 1947, under which the Federal Government exercised certain extraordinary powers to effect an orderly transition to a peacetime basis, was extended into 1950 by



Parliament during 1949, and to Apr. 30, 1951, in 1950. At the time of the renewal of the Act in 1950, it was announced that no further extensions would be requested. On Mar. 31, 1950, the steel and timber controls and the system of building materials priorities were ended as a result of the better supply position of these materials.

There has been a steady and substantial growth of Canadian industry during the post-war period. The greater part of this growth has been brought about by already established firms. Nevertheless, in the period 1945-49 about 600 new businesses each employing over 10 persons and with an annual output in excess of \$50,000 were established in the manufacturing industries alone. Approximately one in four of these businesses were of foreign origin. In 1949, approximately 90 sizable manufacturing businesses were started. These new industries manufacture a great variety of products ranging from diesel electric engines to drilling equipment and from mixed mortar to perfume essence.

Among the industries that started encountering serious difficulties in 1948 were the shipbuilding and merchant shipping industries. To provide work for them, permission was given to sell ships acquired from War Assets Corporation out of Canadian registry on condition that the funds realized, with exceptions, should be applied to replacing the ships with more efficient modern ships built in Canadian yards. The Canadian Vessel Construction Assistance Act, passed in 1949, makes provision for special rates of depreciation for income-tax purposes on vessels constructed or altered in a major way in Canadian shipyards. Also, during 1949, the Government placed orders with Canadian shipyards for the building of a number of naval and other vessels for government departments operating floating equipment. It was announced by the Government late in 1949 that legislation would be introduced in 1950 to provide \$3,000,000 to subsidize the operation for one year of more than 40 vessels remaining under Canadian registry, and to permit the transfer of other ships from Canadian registry under conditions that would assure their being available to Canada and her allies in the event of an emergency.

Agricultural prices supports were extended on the 1948-49 crops of apples in British Columbia and Nova Scotia and of potatoes in New Brunswick and Prince Edward Island. During 1949 and continuing into 1950, the prices of butter, dry skim milk and cheddar cheese were also supported. The maximum funds required for financing the operations amounted to about \$40,000,000, but the net cost after outstanding surpluses are disposed of will probably be less than \$10,000,000. The Fisheries Prices Support Board, to relieve the plight of inland fishermen, purchased some 3,400,000 lb. of their winter catch. In 1948 the Federal Government enacted legislation extending to oats and barley the same powers that the Canadian Wheat Board exercises with respect to wheat. After concurring legislation was passed by the three Provincial Governments concerned, the Board became the sole marketing authority for western oats and barley for the crop year 1949-50.

Assistance has been granted by the Government for many years on the movement of Canadian coal from Eastern and Western Canada to markets in the Central Provinces. During 1949, provision was made by Order in Council P.C. 1094 of Mar. 15 to extend the assistance already available on the movement of coal from British Columbia to export markets other than the United States to cover coal from Alberta. On Apr. 26, Orders in Council P.C. 1653 and 1654 authorized the payment of assistance on the movement by rail of coal from certain types of mines in Nova Scotia and New Brunswick to Quebec at a special rate of 50 p.c. of the freight rate instead of the regular rate of 30 p.c. of the freight. This special provision

was for the summer months only and the assistance expired on Sept. 30. There was during the year a greatly increased movement of Canadian coal to these central markets. Legislation was passed by Parliament in December, 1949, under which loans up to \$10,000,000 could be made to coal producers in the Atlantic Maritime Provinces for the purpose of increasing the efficiency of production.

There has been a substantial immigration into Canada in the post-war period. The earlier movement was composed largely of families of returning war veterans. Later movements were of individuals seeking to establish themselves in a new land and of displaced persons. In 1948 some 125,000 immigrants entered Canada and in 1949 about 95,000. This in-bound movement appears to be on the decline in 1950 as it becomes more difficult to get suitable immigrants and as exchange-control restrictions in European countries place increasing impediments in the way of emigrants. On the other hand, the out-bound movement of Canadians has remained fairly steady in recent years at about 35,000 per annum.

Two Royal Commissions were holding inquiries in 1949 and early 1950. The Royal Commission on Prices, which took over an inquiry originally started in 1948 by the Special Committee on Prices of the House of Commons, reported in March, 1949. A Royal Commission on Transportation was established at the end of 1948 and one on National Development in the Arts, Letters and Sciences in April, 1949.

**Administrative Changes.**—A number of important changes in governmental organization were made during 1949. An important one, the effect of which was to integrate domestic and foreign policy more closely, was the amalgamating of the Cabinet Committees on Economic and Industrial Development, External Trade Policy and Wheat into the Cabinet Committee on Economic Policy. The terms of reference of the Committee are broad and cover economic, financial and trade matters.

The most extensive reorganization was the reallocation of responsibilities of the Departments of Mines and Resources and Reconstruction and Supply among three new departments—Resources and Development, Mines and Technical Surveys, and Citizenship and Immigration. The Department of Resources and Development has duties, powers and functions with respect to forest resources, irrigation projects not under the jurisdiction of other departments, water-power developments, national parks, tourist information and services, housing and the Trans-Canada Highway. The Department of Mines and Technical Surveys is concerned with mines, minerals, explosives and technical surveys in such fields as the mineral development, occurrence and extent of ore-bodies, geography, geology and mineralogy of Canada. It is also concerned with chemical, mechanical and metallurgical research and prepares maps of various kinds. The Department of Citizenship and Immigration is responsible for matters relating to naturalization and citizenship, Indian affairs, immigration and colonization.

In the period following the War the Federal Government established or reorganized a number of semi-independent boards, commissions and Crown companies to discharge various peacetime duties. (See 1948-49 Canada Year Book, pp. xxxiii and 1117-1118.) Two major developments took place in this field in 1949. Enabling legislation was passed to permit the establishment of a Canadian Overseas Telecommunications Corporation under the Minister of Transport. The Corporation is to take over that part of the property and equipment of two companies used in connection with Canada's external communication services by cable, radiotelegraph

and radiotelephone. The second development was with reference to the War Assets Corporation and the Crown Assets Allocation Committee. With their work of disposal of surplus equipment from the war period nearly completed, the Corporation was reconstituted as the Crown Assets Disposal Corporation, to become a continuing disposal agency for government surpluses, while the Committee was disbanded.

### **Federal-Provincial Economic Relations**

There were a number of important developments in relations between the Federal and Provincial Governments during 1949, particularly in the fields of resource development and public investment. The outstanding development, however, was the union of Newfoundland with Canada as a tenth province, on Mar. 31, 1949.

**Canada-Newfoundland Union.**—The long-term significance of the rounding out of Confederation, from the economic point of view, is the political unification of the natural maritime region that exists on Canada's eastern seaboard. For Newfoundland the question of joining or remaining outside Confederation was a serious one. Basically the problem was one of the impact of a matured federal system and an industrially developed economy on a country that had developed its economic pattern independently although the nature of the pattern had been conditioned at many points by close trading ties with the larger economy. The immediate impact of union was generally favourable. The extension of social security benefits to the new province served to augment consumer purchasing power, and the disappearance of Newfoundland tariffs brought about some reduction in the price level. On the other hand, the removal of the tariff weakened the competitive position of Newfoundland manufacturing industries, and a number of these businesses have encountered serious problems in readjusting their production to meet the new situation. In general, the level of activity in Newfoundland was maintained in 1949 at about its 1948 level, the two factors contributing most to this strength being the maintenance and probably slight improvement in the level of exports and the augmenting of personal income through social security benefits. As in other forest areas of Canada, Newfoundland witnessed some cutbacks in woods operations to reduce pulpwood inventories, with a consequent increase in unemployment among woodworkers.

**Resource Development and Public Investment Measures.**—The Federal Government has encouraged resource development by three means. It has encouraged business investment by fiscal incentives, transportation subsidies, credits through the Industrial Development Bank, the finding of new markets, research, the provision of technical services, etc. It has undertaken important joint projects with provinces, a number of which are noted below. Finally, it has influenced the level of investment by the direction and timing of its own investment programs.

A survey of the state of planning of federal works and resource development projects was undertaken. It was found that as of Mar. 31, 1949, there was approximately \$3,000,000,000 of these projects, \$2,750,000,000 of which were of the construction type and \$250,000,000 of the non-construction resource development type. Approximately \$400,000,000 were included in the 1949-50 estimates. Another \$325,000,000 were fully planned, nearly \$1,000,000,000 in various stages of planning, and \$1,300,000,000 were under preliminary examination. Joint projects represented a little over half the \$3,000,000,000 total.\* During 1949 the important items in the resource development and public investment fields were the Trans-Canada Highway, forest development and public assistance to house-building.

\* Department of Reconstruction and Supply Annual Report, 1948-49, pp. 5-6.



Throughout 1949, ministers and officials of the Federal and Provincial Governments worked on the financial, technical and administrative details involved in building a Trans-Canada Highway. Late in 1949, progress had reached the stage where legislation was introduced in and passed by Parliament permitting the Federal Government to enter into agreements with the provinces for a contribution to the construction of the Highway through the provinces. The legislation permitted a dollar-for-dollar contribution on the part of the Federal Government, up to \$150,000,000, for new construction undertaken within seven years or to reimburse provinces for construction already undertaken and included in the Highway, provided the location, standards and the time and method of construction were acceptable to the Federal Government. In April, 1950, six of the ten provinces signed agreements with the Federal Government and negotiations with other provinces were proceeding. An early start on many sections of the proposed road was indicated.

Following several years of consultation with provincial authorities on how the Federal Government could most effectively co-operate with provinces in the orderly development of Canada's forest resources, the Canada Forestry Act was passed late in 1949. This legislation allows the Federal Government to establish national forests, forest experimental areas and forest research laboratories, and to enter into agreements with provinces for the protection, development and utilization of forest resources, and with private persons for economic studies of forest resources, industries or research.

**Housing.**—During the years 1946-49, Canada built over 300,000 new permanent housing units, of which about one-third were constructed with financial assistance from the Federal Government, principally under the National Housing Act. During 1949, the National Housing Act was amended to provide a basis for joint federal-provincial action in the housing field. It made provision for the Federal Government to enter into arrangements with provinces (and municipalities) to undertake projects for the acquisition and development of land for housing purposes and for the construction of houses for sale or for rent. The capital cost of the project and the profits and losses are to be shared 75 p.c. by the Central Mortgage and Housing Corporation on behalf of the Federal Government and 25 p.c. by the provincial government. Other amendments to the National Housing Act make it easier for private individuals to buy new, moderately priced homes by reducing their down-payment requirements, and for co-operatives to finance house-building.

As already mentioned, building materials priorities for certain types of building including veterans housing expired on Mar. 31, 1950. However, the veterans rental-housing program came to an end as 1949 projects were announced to be the last in the series expected to be completed in 1950. This program was to be replaced by federal-provincial housing projects for veterans and civilians alike. On Dec. 31, 1949, provision for double depreciation on rental-housing projects lapsed. This provision made in March, 1947, to encourage construction of rental housing, allowed depreciation at double the rates normally applied for income-tax purposes for the first ten years after the rental unit was built.

Although a number of other important controls were ended early in 1950, rent control was continued. The Federal Government announced that it proposed to discontinue its system of rent controls on Apr. 30, 1951, when the Transitional Measures Act is due to expire. The provincial governments were advised to this effect and an offer of assistance in preparing stand-by legislation was made to



them by the Federal Government. Before a decision to continue rent control was taken, the constitutionality of the Federal Government's position was tested before the Supreme Court of Canada; the rule confirmed its right to be in the field because an emergency existed.

**Social Security.**—The two important extensions of social security provisions in 1949 and early 1950 related to family allowances, old age pensions and unemployment insurance. The three-year-residence-in-Canada rule for qualifying a child for the allowance was reduced to one year, and the provision that decreased rates of allowances be given for fifth and additional children was dropped. With respect to old age pensions, the Federal Government agreed to contribute three-quarters of the amount of pension paid up to a maximum of \$40, an increase of \$10 in the basic rate.

Important changes were made in unemployment insurance legislation in February, 1950. The most significant change was the provision of supplementary benefits in the first three months of each calendar year for insured workers who have exhausted their benefits, have not sufficient contributions to qualify, have recently been brought within the scope of unemployment insurance but have not yet qualified or who are lumbermen and loggers with 90 days of employment in their occupation in any 12-month period in the 18 months preceding the making of a claim. Supplementary benefits are paid at 80 p.c. of the normal unemployment benefit. Other changes in the Act effected in 1950 were a widening of coverage to include persons earning between \$3,120 and \$4,800 and all lumbermen and loggers, increasing insurance contributions and benefits and raising permissive earnings while unemployed from \$1.50 to \$2 per day.

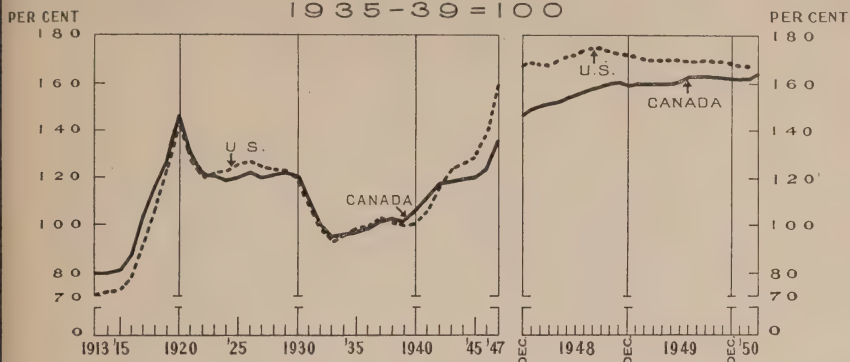
Also, during 1949, the health grants program announced in 1948 made steady progress. The annual grants presently amount to about \$30,000,000 per year, not all of which is as yet being expended owing to the time required to develop the services. The grants cover ten types of health activities and are contingent on provinces making specific outlays in the various fields covered. Up to the end of 1949 over 1,500 projects had been dealt with under the program.

**Federal-Provincial Conferences.**—Federal-provincial co-operation exists over a much wider front than is indicated in the topical fields mentioned above. It is possible that important developments will take place in 1950. A constitutional conference of Federal and Provincial Governments was held in January, 1950, at which it was agreed to appoint a standing committee to investigate certain constitutional problems and that the conference should later reassemble to determine a procedure to amend the British North America Act. It has also been announced that a general conference of these Governments will be held in the autumn of 1950. At this time, it is expected, many matters concerning the relations between the Government in the economic sphere, as well as other problems, will be brought under review.

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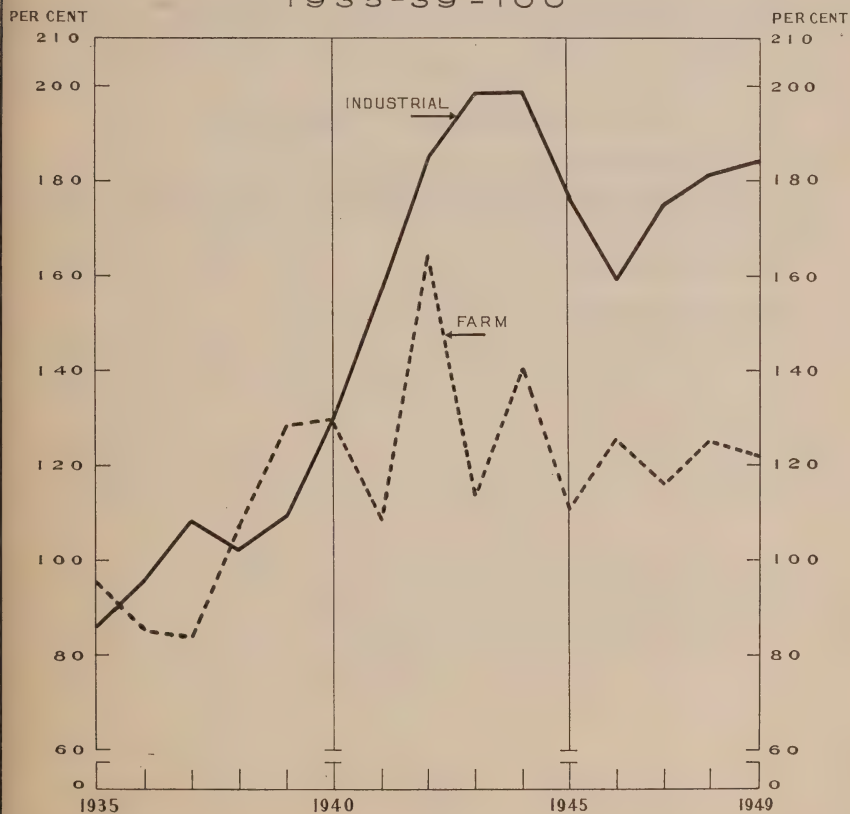
# COST OF LIVING IN CANADA AND THE UNITED STATES

1935-39=100



# PRODUCTION

1935-39=100



## *ERRATUM*

p. 502, Table 9—Footnote 2 should apply to 1940-41 not to 1942-43.

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## *SYMBOLS*

The interpretation of the symbols used in the tables throughout this publication is as follows:—

. . to indicate figures are not available.

... to indicate figures are not appropriate or not applicable.

— to indicate nil or zero.

- - to indicate that the amount is too small to be expressed or where "a trace" is meant.

*p* to indicate that figures are preliminary.

*r* to indicate that figures have been revised.

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# CHAPTER I.—PHYSIOGRAPHY AND RELATED SCIENCES

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found on the facing page.

## PART I.—GEOGRAPHY\*

**Main Geographical Features.**—Canada comprises the whole northern part of the North American Continent with its islands, except the United States territory of Alaska. It embraces the whole Arctic Archipelago between Davis Strait and the connecting waters northward to the 60th meridian on the east and the 141st meridian on the west.

Canada is bounded on the west by the Pacific Ocean and Alaska; on the south by the United States; on the east by the Atlantic Ocean, Davis Strait and the dividing waters between Ellesmere Island and the Danish territory of Greenland; northward it extends to the North Pole.

The southernmost point is Middle Island in Lake Erie, in north latitude 41°41'. From east to west Canada extends from west longitude 52°37', Cape Spear, Newfoundland, to west longitude 141°, the boundary of Alaska. Canadian territory thus extends over 48° of latitude and 88° of longitude.

The area of Canada is 3,845,144 square miles, a figure that may be compared with that of 3,608,787 square miles for Continental United States and Alaska; 2,095,062 the total area of Europe; 2,974,581 the area of Australia; 3,275,510 the area of Brazil; 1,581,410 the area of the Dominions of India and Pakistan (excluding Burma); 88,807 the area of Great Britain. Canada's area is about 27 p.c. of the total area of the British Commonwealth.

\* Revised by the Department of Mines and Resources, Ottawa.



The sea coast of Canada, one of the longest of any country in the world, comprises the following mileages:—

Mainland—Atlantic 6,111, Pacific 1,579, Hudson Strait 1,245, Hudson Bay 3,157, Arctic 5,771; total 17,863 miles.

Islands— Atlantic 8,677, Pacific 3,979, Hudson Strait 60, Hudson Bay 2,307, Arctic 26,786; total 41,809 miles.

The Canada-United States Boundary is 3,986·8 miles long and that between Canada and Alaska is 1,539·8 miles.

The St. Lawrence-Great Lakes system of navigable waterways provides ship transportation from the sea into the very heart of the continent. From the Strait of Belle Isle at the northern entrance to the Gulf of St. Lawrence, the sailing distance to the head of Lake Superior is 2,338 miles; from Montreal, Que., to Fort William, Ont., the great Canadian grain-shipping port, the distance is 1,215 miles. Throughout its length the waterway gives access to a region rich in natural and industrial resources.

These inland waterways are of great benefit to Canada since modern canal systems by-pass the unnavigable portions of the St. Lawrence River, link up the various bodies of water of the Great Lakes and have a great economic influence on the wealth and progress of the nation. There are no tides in these Lakes although considerable variation in water levels is sometimes occasioned by strong winds or heavy precipitation. At the Great Lakes ports and harbours, ships load and unload their cargoes to and from all points in Canada.

### 1.—Approximate Land and Fresh-Water Areas, by Provinces and Territories

NOTE.—For a classification of land area as agricultural, forested, etc., see pp. 16-17.

Province or Territory	Land	Fresh Water	Total	Percentage of Total Area
	sq. miles	sq. miles	sq. miles	
Newfoundland.....	37,013 <sup>1</sup>	5,721 <sup>1</sup>	154,734	4·0
Island of Newfoundland.....	37,013	5,721	42,734	1·1
Coast of Labrador.....	—	—	112,000	2·9
Prince Edward Island.....	2,184	—	2,184	0·1
Nova Scotia.....	20,743	325	21,068	0·6
New Brunswick.....	27,473	512	27,985	0·7
Quebec.....	523,860	71,000	594,860	15·5
Ontario.....	363,282	49,300	412,582	10·7
Manitoba.....	219,723	26,789	246,512	6·4
Saskatchewan.....	237,975	13,725	251,700	6·6
Alberta.....	248,800	6,485	255,285	6·6
British Columbia.....	359,279	6,976	366,255	9·5
Yukon.....	205,346	1,730	207,076	5·4
Northwest Territories.....	1,253,438	51,465	1,304,903	33·9
Franklin.....	541,753	7,500	549,253	14·3
Keewatin.....	218,480	9,700	228,180	5·9
Mackenzie.....	493,225	34,265	527,490	13·7
<b>Canada.....</b>	<b>3,499,116<sup>1</sup></b>	<b>234,028</b>	<b>3,845,144</b>	<b>100·0</b>

<sup>1</sup> Excluding Coast of Labrador.

## Section 1.—Physical Geography

The physical features of Canada are considered under this heading in the six natural divisions into which the country is divided, as shown on the map, p. 4.

(1) The Appalachian Region, comprising the Maritime Provinces (including the Island of Newfoundland) and most of that part of Quebec lying south of the St. Lawrence River, is a hilly or mountainous region and is made up largely of disturbed beds.

(2) The St. Lawrence Region, a lowland belt bordering the St. Lawrence River and extending westward through southern Ontario to Lake Huron, is underlain chiefly by flat or gently dipping strata of Palæozoic age.

(3) The Canadian Shield is a vast V-shaped area of ancient rocks surrounding Hudson Bay, and includes Labrador.

(4) The Interior Plains Region of Manitoba, Saskatchewan, and Alberta stretches down Mackenzie Valley to the Arctic Ocean and is underlain by only slightly disturbed Palæozoic and Mesozoic strata.

(5) The Cordilleran Region, including the mountainous country of the Pacific Coast, is developed on highly disturbed rocks.

(6) The Arctic Archipelago, with which is linked the Hudson Bay Lowland, includes the islands lying north of the Canadian Shield, and a broad, flat region, underlain by flat-lying Palæozoic beds, along the southern shore of Hudson Bay.

The physiographic details and geology of each division described above are given at pp. 19-29 of the 1947 edition of the Year Book.

Special articles on the Physical Geography of the Canadian Eastern Arctic and the Physical Geography of the Canadian Western Arctic appear at pp. 12-19 of the 1945 Year Book and pp. 9-18 of the 1948-49 edition, respectively.

### Subsection 1.—Hydrographical Features

The hydrographical features of Canada are described in detail at pp. 3-12 of the 1947 edition of the Year Book.

### Subsection 2.—Lakes and Rivers

The fresh-water area of Canada is unusually large constituting over 6 p.c. of the total area of the country. The outstanding feature is the Great Lakes, details concerning which are given in Table 2. These lakes, with the St. Lawrence River, form the most important system of waterways on the continent and one of the world's most notable fresh-water transportation routes.

## 2.—Areas, Elevations, and Depths of the Great Lakes

Lake	Elevation Above Sea-level	Length	Breadth	Maximum Depth	Total Area	Area on Canadian Side of Boundary
	ft.	miles	miles	ft.	sq. miles	sq. miles
Superior .....	602.23	383	160	1,302	31,820	11,200
Michigan .....	580.77	321	118	923	22,400	—
Huron .....	580.77	247	101	750	23,010	13,675
St. Clair .....	575.30	26	24	23	460	270
Erie .....	572.40	241	57	210	9,940	5,094
Ontario .....	245.88	193	53	774	7,540	3,727



Lake Superior, with an area of 31,820 square miles, is the largest body of fresh water in the world. The International Boundary between Canada and the United States passes through the waters of Lakes Superior, Huron, St. Clair, Erie and Ontario. The great obstacle to navigation on this waterway—the rise of 326 feet between Lakes Ontario and Erie—is surmounted by the Welland Ship Canal; the Niagara River dropping over the escarpment at Niagara creates the famous Niagara Falls. In addition to the Great Lakes there are many other remarkably large lakes; the following twelve, with their areas in square miles in parentheses, are



all over 1,000 square miles in area: Great Bear (12,000), Great Slave (11,170), Winnipeg (9,398), Athabaska (3,058), Reindeer (2,444), Winnipegosis (2,086), Nipigon (1,870), Manitoba (1,817), Dubawnt (1,600), Lake of the Woods (1,346), Lake Melville (1,132) and Southern Indian (1,060). Apart from these, named as notable for their size, there are innumerable other lakes scattered all over that major portion of the area of Canada lying within the Canadian Shield. In an area of 6,094 square miles, accurately mapped, just south and east of Lake Winnipeg, there are 3,000 lakes; in an area of 5,294 square miles, accurately mapped, southwest of Reindeer Lake in Saskatchewan, there are 7,500 lakes.

### 3.—Areas and Elevations of Principal Lakes, by Provinces

NOTE.—In the case of those reservoirs and lakes for which two elevations are given, HW means high water, LW low water, and N normal level.

[illegible]

<sup>1</sup> Areas of Newfoundland lakes are approximate areas, miles).

<sup>2</sup> Excludes Glover Island (71.7 sq.

## 3.—Areas and Elevations of Principal Lakes, by Provinces—continued

Province and Lake	Elevation	Area	Province and Lake	Elevation	Area
	ft.	sq. miles		ft.	sq. miles
<b>Manitoba—</b>			<b>Saskatchewan—concluded</b>		
Athapapuskow.....	951	104	Loche, la.....	1,459	70
Atikameg.....	855	112	Montreal.....	1,608	162
Beaverhill.....	651	70	Nomeu (total, 79) part.....	873	71
Cedar.....	829	537	Nemeiben.....	1,259	63
Cormorant.....	840	134	Peter Pond.....	1,382	302
Cross, Nelson River.....	679	274	Primrose (total, 181) part.....	1,964	173
Dauphin.....	853	200	Quill.....	1,704	236
Dog.....	815	64	Reindeer (total, 2,444) part.....	1,150	2,058
Etawnei.....	..	28	Riou.....	..	75
Gods.....	585	319	Sisipuk (total, 99) part.....	915	26
Goose.....	935	53	Smoothstone.....	1,572	110
Granville.....	850	181	Snake.....	1,262	159
Island.....	744	550	Tazin.....	1,130	156
Kamuchawie (total, 56) part.....	1,153	30	Wollaston.....	1,300	768
Kipahigan (total, 59) part.....	963	29			
Kiskittogisu.....	709	99			
Kiskitto.....	696	65			
Kississing.....	920	141	<b>Alberta—</b>		
Manitoba.....	813	1,817	Athabaska (total, 3,058) part.....	699	893
Molson.....	..	154	Beaverhill.....	2,202	80
Moose.....	838	525	Biche, la.....	1,784	94
Nomeu (total, 79) part.....	873	8	Buffalo.....	2,566	56
Northern Indian.....	725	150	Calling.....	1,947	55
Nueltin (total, 336) part.....	..	76	Claire.....	699	545
Oxford.....	612	155	Cold (total, 136) part.....	1,756	100
Paint.....	615	54	Lesser Slaye.....	1,893	461
Pelican, west of Lake Winni- pegosis.....	837	80	Mamawi.....	699	64
Playgreen.....	711	257	Peerless.....	2,267	75
Reed.....	911	78	Primrose (total, 181) part.....	1,964	8
Red Deer, west of Lake Win- nipegosis.....	862	86	Sullivan (variable).....	2,652	62
Reindeer (total, 2,444) part.....	1,150	386	Utikuma.....	2,105	85
St. Martin.....	798	125			
Seting.....	737	49	<b>British Columbia—</b>		
Shoal (total, 114) part.....	1,065	6	Adams.....	1,334	52
Sipiwek.....	598	201	Atlin (total, 308) part.....	2,200	307
Sisipuk (total, 99) part.....	915	73	Babine.....	2,330	194
Southern Indian.....	835	1,060	Chilko.....	3,842	75
Stevenson.....	..	75	Eutsuk.....	2,817	96
Swan.....	849	100	François.....	2,345	91
Talbot.....	845	72	Harrison.....	34	87
Todatara (total, 241) part.....	1,121	156	Kootenay.....	1,741	168
Walker.....	1,121	62	Kotcho (unsurveyed and esti- mated).....	..	90
Waterhen.....	829	90	Lower Arrow.....	1,379	55
Wekusko.....	840	64	Okanagan.....	1,123	136
Winnipeg.....	712	9,398	Ootsa.....	2,666	50
Winnipegosis.....	831	2,086	Quesnel.....	2,375	100
Woods, Lake of the (total, 1,346) part.....	{ HWL, 1,062 LW 1,055 }	59	Shuswap.....	1,137	120
			Stuart.....	2,225	139
<b>Saskatchewan—</b>			Tagish (total, 138) part.....	2,148	93
Amisk.....	964	168	Takla.....	2,270	102
Athabaska (total, 3,058) part.....	699	2,165	Teslin (total, 161) part.....	2,250	65
Besnard.....	1,294	72	Upper Arrow.....	1,395	88
Black Birch.....	1,517	54			
Candle.....	1,620	56	<b>Northwest Territories—</b>		
Canoe.....	1,415	78	Aberdeen.....	130	475
Churchill.....	1,382	213	Artillery.....	1,190	207
Cold (total, 136) part.....	1,756	36	Aylmer.....	1,230	340
Cree.....	1,541	350	Baker.....	30	975
Cumberland.....	871	93	Clinton-Colden.....	1,226	253
Deschambault.....	1,072	209	Dubawnt.....	500	1,600
Doré.....	1,506	248	Faber.....	753	163
Ile-à-la-Crosse.....	1,379	165	Franklin.....	..	175
Kamuchawie (total, 56) part.....	1,153	26	Garry.....	..	950
Kipahigan (total, 59) part.....	963	30	Gras, de.....	1,300	345
La Plonge.....	1,476	90	Great Bear.....	391	12,000
La Ronge.....	1,250	450	Great Slave.....	495	11,170
Last Mountain.....	1,608	89	Hardisty.....	699	107

## 3.—Areas and Elevations of Principal Lakes, by Provinces—concluded

Province and Lake	Elevation	Area	Province and Lake	Elevation	Area
	ft.	sq. miles		ft.	sq. miles
<b>Northwest Territories—</b> continued			<b>Northwest Territories—</b> concluded		
Hottah.....	..	377	Thoslintoa.....	..	160
Kaminuriak.....	320	360	Todatara (total, 241) part.....	..	85
Maddougal.....	..	265	Yathkyed.....	300	860
Maguse.....	..	540			
Martre, la.....	..	685	<b>Yukon—</b>		
Mackay.....	1,415	250	Aishihik.....	..	107
Marian.....	495	90	Atlin (total, 308) part.....	2,200	1
Nueltin (total, 336) part.....	..	260	Kluane.....	2,500	184
Nutarawit.....	..	350	Kusawa.....	2,565	56
Pelly.....	..	331	Laberge.....	2,100	87
Point.....	..	295	Tagish (total, 138) part.....	2,148	45
Rae.....	748	74	Teslin (total, 161) part.....	2,250	96
Schultz.....	115	110			

The river systems of Canada, excluding those of the Arctic Archipelago, are best studied by segregating the main drainage basins as shown in Table 4.

## 4.—Drainage Basins, 1949

NOTE.—Classified by the Dominion Water and Power Bureau, Department of Mines and Resources.

Drainage Basin	Area Drained <sup>1</sup>	Drainage Basin	Area Drained <sup>1</sup>
	sq. miles		sq. miles
<b>Atlantic Basin</b>		<b>Arctic Basin</b>	
Atlantic or Maritime Provinces.....	213,885	Great Slave Lake.....	370,681
Great Lakes and St. Lawrence River...	359,312	Arctic.....	559,676
<b>Total.....</b>	<b>573,197</b>	<b>Total.....</b>	<b>930,357</b>
		<b>Pacific Basin</b>	
<b>Hudson Bay Basin</b>		Pacific.....	273,540
Northern Quebec.....	343,259	Yukon River.....	127,190
Southwest Hudson Bay.....	283,997	<b>Total.....</b>	<b>400,730</b>
Nelson River.....	368,182	<b>Gulf of Mexico Basin.....</b>	<b>10,121</b>
Western Hudson Bay.....	383,722	<b>Area, Canada Less Arctic Archipelago</b>	<b>3,310,396</b>
<b>Total.....</b>	<b>1,379,160</b>		

<sup>1</sup> Areas are approximate and are exclusive of those portions of the basins of all rivers that lie in United States territory. Newfoundland is included in the Atlantic Basin and in the total for Canada.

The greater part of Canada drains into Hudson Bay and the Arctic Ocean; the Nelson River drainage is exceptional in running *through* the most arable and the most settled part of Western Canada, but otherwise the rivers of the West, east of the Rockies run *away* from the settled areas towards the cold northern salt waters and this adversely affects their industrial utility. The Mackenzie, which drains Great Slave Lake is, with its headwaters, the longest river in Canada (2,514 miles) and its valley constitutes the natural transportation route through the Northwest Territories down to the Arctic Ocean. From Fort Smith, on the Slave River, large river boats run without any obstruction down to Aklavik in the delta of the



Mackenzie, a distance of 1,292 miles. In Eastern Canada, the Great Lakes and St. Lawrence drainage basin dominates all others and has undergone the greatest development. The St. Lawrence River and the Great Lakes provide a water route from the Atlantic as far as Fort William and Port Arthur, Ont., twin cities situated on Lake Superior and only 419 miles from Winnipeg, Man., the half-way mark in distance across Canada. The main tributaries of the St. Lawrence all flowing south (most of which have lakes available for reservoiring), together with the main river itself, have developed and undeveloped water powers the economic value of which it would be difficult to over-estimate. Apart from the plains region of the West, the rivers of Canada have a vast power potentiality well distributed over the country. Table 5 gives the lengths of the principal rivers with their tributaries classified according to the four major drainage basins.

### 5.—Lengths of Principal Rivers and Tributaries

NOTE.—In this table the tributaries and sub-tributaries are indicated by indentation of the names. Thus the Ottawa and other rivers are shown as tributary to the St. Lawrence, and the Gatineau and other rivers as tributary to the Ottawa.

River	Length miles	River	Length miles
<b>Flowing into the Atlantic Ocean</b>		<b>Flowing into Hudson Bay</b>	
St. Lawrence (to head of St. Louis, Minn.)	1,900	Nelson (to head of Bow)	1,600
Ottawa	696	Saskatchewan (to head of Bow)	1,205
Gatineau	240	South Saskatchewan	865
du Lièvre	205	Red Deer	385
Coulonge	135	Bow	315
Madawaska	130	Belly	180
Rouge	115	North Saskatchewan	760
Mississippi	105	Red (to head of Sheyenne)	545
Petawawa	95	Assiniboine	590
South Nation	90	Souris	450
Dumoine	80	Qu'Appelle	270
North	70	Winnipeg (to head of Firesteel)	475
North Nation	60	English	330
Saguenay (to head of Peribonca)	475	Churchill	1,000
Peribonca	280	Beaver	305
Mistassini	185	Koksoak (to head of Kaniapiskau)	660
Ashuapmucuan	165	Kaniapiskau	575
St. Maurice	325	Seyern (to head of Black Birch)	610
Mattawin	100	Albany (to head of Cat)	610
Manicouagan (to head of Racine-de-Bouleau)	310	Dubawnt	580
Outardes	270	Eastmain	510
Bersimis	240	Fort George (to Nichicun Lake)	480
Richelieu	210	Attawapiskat	465
St. Francis	165	Kazan	455
Chaudière	120	Nottaway (to head of Waswanipi)	400
Via the Great Lakes—		Waswanipi	190
French (to head of Sturgeon)	180	Nelson (to head of Lake Winnipeg)	400
Sturgeon	110	Rupert	380
Grand	165	Red (to head of Lake Traverse)	355
Thames	163	George (to Hubbard Lake)	345
Spanish	153	Moose (to head of Mattagami)	340
Trent	150	Abitibi	340
Mississagi	140	Mattagami	275
Nipigon (to head of Ombabika)	130	Missinabi	265
Moir	60	Hayes	300
Thessalon	40	Winisk	295
St. John	399	Whale	270
Romaine	270	Harricanaw	250
Natashquan	241	Great Whale	230
Moisie	210	Leai	165
Hamilton <sup>1</sup>	208		
Exploits <sup>2</sup>	153	<b>Flowing into the Pacific Ocean</b>	
Naskaupi <sup>1</sup>	152	Yukon (mouth to head of Nisutlin)	1,979
Canairiktok <sup>1</sup>	139	Columbia (total)	1,150
Eagle <sup>1</sup>	138	Fraser	850
Miramichi	135	Thompson (to head of North Thompson)	304
Marguerite	130	North Thompson	210
Gander <sup>2</sup>	102	South Thompson (to head of Shuswap)	206

<sup>1</sup> Flowing through Labrador.

<sup>2</sup> Newfoundland.



# ELEVATIONS OF RAILWAY STATIONS IN CITIES AND TOWNS WITH OVER 5,000 INHABITANTS (Census of 1941)

Province	Station	Elevation Above Sea-Level	Province	Station	Elevation Above Sea-Level	Province	Station	Elevation Above Sea-Level	
		feet			feet			feet	
Prince Edward Island	Charlottetown (C.N.R.)	9	Quebec—Continued...	Shawinigan Falls (C.P.R.)	300	Ontario—Continued...	Preston	926	
	Summerside	9		Sherbrooke (C.P.R.)	46		Randow (C.P.R.)	418	
				Sorel (C.N.R.)	46		St. Catharines (C.N.R.)	349	
New Scotia	Aulicourt (C.N.R.)	80		Thetford Mines (C.C. Ry.)	1,025		St. Thomas (C.N.R.)	755	
	Dartmouth (C.N.R.)	53		Trois-Rivières (C.N.R.)	82		Sarnia (C.N.R.)	812	
	Glouce Bay (S. and L. Ry.)	74		Valleyfield (C.N.R.)	161		Sault Ste. Marie (C.P.R.)	636	
	Halifax (new C.N.R.)	34		Verdon	1		Simcoe (North)	724	
	New Glasgow (C.N.R.)	31		Victoriaville (C.N.R.)	433		Simcoe (South)	714	
	New Waterford (Union)	202		Westmount (C.P.R.)	152		Smith's Falls (C.P.R.)	428	
	North Sydney (C.N.R.)	41					Stratford (C.N.R.)	1,193	
	Springhill (C. Ry. and C. Co.)	435	Orléans	Barrie (C.N.R.)	725		Sudbury (C.P.R.)	857	
	Stellarton (C.N.R.)	62		Belleville (C.P.R.)	290		Swanton	1	
	Sydney (C.N.R.)	7		Brampton (C.P.R.)	721		Therold (C.N.R.)	455	
	Sydney Mines (C.N.R.)	62		Brantford (C.N.R.)	705		Timmins (T. and N.O. Ry.)	1,039	
	Tyso (Union)	62		Brookville (C.P.R. and C.N.R.)	283		Toronto (Union)	273	
	Yarmouth (C.N.R.)	15		Chatham (C.P.R.)	294		Toronto (C.P.R.)	295	
New Brunswick	Campbellton (C.N.R.)	42		Cobourg (C.P.R.)	294		Waterloo (C.N.R.)	1,035	
	Edmundston (C.P.R.)	479		Collingwood (C.N.E.)	389		Welland (C.N.R.)	450	
	Fredericton (C.P.R.)	32		Corwall (C.P.R.)	183		Weston	479	
	Menton (C.N.R.)	50		Dundas (C.N.R.)	513		Whitby (C.N.R.)	285	
	Saint John	21		Eastview (C.P.R.)	197		Windsor (M.C. Ry.)	606	
				Forest Hill	1		Woodstock (C.P.R.)	945	
				Fort Erie (Union)	592				
Quebec	Asbestos	1		(M.C.R.—Victoria)	615	Manitoba	Brandon (C.P.R.)	1,306	
	Cap-de-la-Madeline (C.P.R.)	123		Fort Frances (C.N.R.)	1,132		(C.N.R.)	1,263	
	Chicoutimi (C.N.R.)	21		Fort William (C.P.R.)	517		Portage la Prairie (C.P.R.)	558	
	Drummondville (C.P.R.)	266		Galt (C.P.R.)	926		St. Boniface (C.P.R.)	759	
	Granby (C.N.R.)	287		Guelph (C.P.R.)	946		Truro (C.N.R.)	771	
	Grand Mère (C.P.R.)	424		Hamilton (King Ry.)	315		Winnipeg (C.P.R.)	772	
	Hull (C.P.R.)	187		Hawkesbury (C.N.R.)	145				
	Joliette (C.P.R.)	183		Ingersoll (C.P.R.) (South)	890	Saskatchewan	Moore Jaw (C.P.R.)	1,778	
	Jouque (C.N.R.)	187		(North)	890		Prince Albert (C.P.R. and C.N.R.)	1,414	
	Kénoyuan (Jouque)	457		Kenora (C.P.R.)	1,060		Regina	1,096	
	Lachine (C.N.R.)	81		Kingston (C.P.R.)	101		Saskatoon (C.P.R.)	1,460	
	Lachine (C.P.R.)	207		Kitchener	525		Swift Current (C.P.R.)	2,452	
	Lac Beauport (C.N.R.)	728		Leamington (P.M.R.)	630		Weyburn (C.P.R.)	1,857	
	La Tuque (C.N.R.)	645		(M.C.R.)	628		Yorkton (C.P.R.)	1,087	
	Léveson (Site of R.C. Church)	72		Léveson	420	Alberta	Calgary (C.P.R.)	2,439	
	Lévis (C.N.R.)	75		Lindsay (C.P.R.)	823		Edmonton (C.P.R.)	2,189	
	Longueuil (C.N.R.)	59		London (C.P.R.)	535		(C.N.R.)	2,463	
	Magog (C.P.R.)	59		Long Beach	215		Lethbridge (C.P.R.)	2,183	
	Montmorency	35		Midland	593		Medicine Hat (C.P.R.)	2,183	
	Montreal North	1		Mimico	307				
	Montreal (C.P.R.—Windsor)	199		New Toronto	1				
	Outremont (C.P.R.)	256		Niagara Falls (C.N.R.)	572	British Columbia	Kamloops (C.P.R.)	1,160	
	Quebec (C.P.R. and C.N.R.)	21		North Bay (C.P.R.)	622		Solomon	1,131	
	Rimouski (C.N.R.)	77		Oroville (C.P.R.)	725		Nanaimo (C.P.R.)	129	
	Rivière-du-Lois (C.N.R.)	215		Oshawa (C.P.R.)	215		Nelson (C.P.R.)	1,759	
	Rouyn	165		Ottawa (Union)	585		New Westminster (C.P.R.)	12	
	St-Hyacinthe (C.P.R.)	109		Owen Sound (C.P.R.)	615		(C.N.R.)	34	
	St-Jean (C.N.R.)	118		Perry Sound (C.P.R.)	644		North Vancouver	19	
	St-Jérôme (C.P.R.)	121		Pembroke (C.P.R.)	581		Prince Rupert (C.N.R.)	1,383	
	St-Joseph-de-Beauport (Site of R.C. Church)	201		Peterborough (C.P.R.)	637		Trail (C.P.R.)	19	
	St-Joseph-de-Granby	1		Port Arthur (C.P.R.)	583		Vancouver (C.P.R.)	1,254	
	St-Lambert (C.N.R.)	76		Port Colborne (C.N.R.)	267		Vernon	29	
	St-Laurent	1		Port Hope (C.N.R.)	299		Victoria (E. and N. Ry.)	29	

<sup>1</sup> Elevation data not available.



## 5.—Lengths of Principal Rivers and Tributaries—concluded

River	Length miles	River	Length miles
<b>Flowing into the Pacific Ocean— concluded</b>		<b>Flowing into the Arctic Ocean—</b>	
Nechako.....	287	Mackenzie (to head of Finlay).....	2,635
Stuart (to head of Driftwood).....	258	Peace (to head of Finlay).....	1,195
Chilcotin.....	146	Finlay.....	250
West Road (Blackwater).....	141	Smoky.....	245
Yukon (Int. Boundary to head of Nisutlin).....	714	Little Smoky.....	185
Porcupine.....	590	Parsnip.....	145
Lewes.....	338	Athabaska.....	765
Pelly.....	330	Pembina.....	210
Stewart.....	320	Liard.....	755
Macmillan.....	200	South Nahanni.....	350
White.....	185	Petitot.....	295
Columbia (in Canada).....	459	Fort Nelson.....	260
Kootenay (total).....	407	Hay.....	530
Kootenay (in Canada).....	276	Peel (to head of Ogilvie).....	425
Keeena.....	360	Arctic Red.....	310
Bulkley (to head of Maxam Creek).....	160	Slave.....	258
Stikine.....	335	Twitya.....	200
Aisek.....	260	Back.....	605
Nass.....	236	Coppermine.....	525
		Anderson.....	430
		Horton.....	275

## Subsection 3.—Mountains

The predominant orographical feature in Canada is the great Cordilleran Mountain System. The principal named peaks exceeding 11,000 feet in elevation all lie within that system and are listed at pp. 7-8 of the 1948-49 edition of the Year Book.

## Subsection 4.—Islands

The islands of Canada are among its most remarkable geographic features. They include the very large group lying in the Arctic Ocean, the fringe of both large and small islands off the Pacific Coast, the islands fringing the coast of Labrador, those of the Maritime Provinces and Quebec in the Atlantic Ocean and in the Gulf of St. Lawrence, together with the islands of the Great Lakes and other inland waters. The Pacific Coast islands, with the exception of Vancouver Island and the Queen Charlotte group, are small and dot the coast of British Columbia from Dixon Entrance to the southern boundary of the Province. Vancouver Island is 285 miles long and from 40 to 80 miles broad, covering an area of about 12,408 square miles; the mountain range which forms its backbone rises again to form the Queen Charlotte Islands farther north. These islands figure largely in the mining, lumbering and fishing industries of the West and, together with the bold and deeply indented coast line, provide a region for superb scenic cruises.

On the eastern coast of Canada are the numerous small, rocky islands lying off the coast of Labrador, the island provinces of Newfoundland and Prince Edward Island, the islands of Cape Breton (an integral part of Nova Scotia), Anticosti, and the Magdalen group (included in the Province of Quebec), and the islands of Grand Manan and Campobello (part of the Province of New Brunswick) in the Bay of Fundy. Newfoundland is 42,734 square miles in area, Prince Edward Island 2,184 square miles, Cape Breton 3,970 square miles and Anticosti 3,043 square miles. Fishing activities in these eastern islands are important, while agriculture on Prince Edward Island and mining on Cape Breton are the chief occupations of the inhabitants.

Manitoulin Island, area 1,068 square miles, the Georgian Bay islands in Lake Huron, and the Thousand Islands group in the St. Lawrence River at its outlet from Lake Ontario, are the more important islands of the inland waters.

Table 6 gives the principal islands in Canada having an area of over 2,000 square miles.

6.—Areas of Principal Islands

Island	Area	Island	Area
	sq. miles		sq. miles
<b>Arctic Ocean—</b>		<b>Arctic Ocean—concluded</b>	
Baffin.....	197,754	Ellef Ringnes.....	3,719
Victoria.....	80,340	Cornwallis.....	2,660
Ellesmere.....	77,392	Amund Ringnes.....	2,027
Banks.....	25,675		
Devon.....	21,606	<b>Atlantic Ocean—</b>	
Melville.....	16,503	Newfoundland.....	42,734
Southampton.....	16,350	Cape Breton.....	3,970
Prince of Wales.....	13,736	Prince Edward.....	2,184
Axel-Heiberg.....	13,583	Anticosti (Gulf of St. Lawrence).....	3,043
Somerset.....	9,594		
Prince Patrick.....	7,192	<b>Pacific Ocean—</b>	
King William.....	5,106	Vancouver.....	12,408
Bylot.....	5,005		

## Section 2.—Political Geography

Politically, Canada is divided into ten provinces and two 'territories'. Each of the provinces is sovereign in its own sphere, as set out in the British North America Act (see pp. 40-60 of the 1942 Year Book), and as new provinces have been organized they have been granted political status equivalent to that of the original provinces. Yukon and the Northwest Territories with their boundaries of to-day are administered by the Federal Government. The characteristics of each of the provinces and of the 'territories' are reviewed below.

**Newfoundland.**—The Island of Newfoundland lies across the Gulf of St. Lawrence and is the most easterly part of Canada. It is separated from the coast of Labrador by the Strait of Belle Isle, 11 miles across at its narrowest point, and from Cape Breton Island by Cabot Strait, 70 miles wide. It is triangular in shape, the three sides about 320 miles in length, and has an area of 42,734 square miles. The dependency of Labrador is on the mainland with an area of 112,000 square miles.

Newfoundland enjoys a temperate climate with cool summers, mild winters and evenly distributed rainfall. The climatic conditions of Labrador are more severe.

The island is a plateau of low, rolling relief, with its highest elevations in the west where summits in the Long Range Mountains exceed 2,500 ft. Much of the surface is barren and rocky with innumerable ponds and swamps, and there is little land suitable for farming. The river valleys and the west coast are thickly forested and support a thriving wood-pulp industry. The deeply indented coast line has many harbours providing safe anchorage for the fishing vessels which support the important fishing industry. Fishing, mainly for cod, is carried on along the coasts of Newfoundland and Labrador and on the Grand Banks. Both New-

foundland and Labrador have extensive mineral deposits. Iron ore is mined on Belle Island and lead-zinc-copper ore at Buchans in the interior. The vast iron-ore and water-power resources of Labrador are as yet undeveloped (see Article on "The Iron-Ore Resources of the Quebec-Labrador Region", Chapter XV).

**Prince Edward Island.**—This, the smallest province of Canada is about 120 miles in length, with an average width of 20 miles and has an area of 2,184 square miles. It lies just off the coast east of New Brunswick and north of Nova Scotia and is separated from both provinces by Northumberland Strait, from 10 to 25 miles wide.

The Island is almost trisected by the deep indentations of Malpeque Bay, north of the town of Summerside, and by the mouth of the Hillsborough River at Charlottetown, which nearly meets Tracadie Bay on the north side. Its rich, red soil and red sandstone formations are distinctive features, and no point on the Island attains a greater altitude than about 450 feet above sea-level. The climate, tempered by the surrounding waters of the Gulf of St. Lawrence and yet free from the rigours of Atlantic storms, combined with a fertile soil and sheltered harbours, offers great inducements to the pursuits of agriculture and fishing. The Province is noted for its relative predominance in the fox-farming industry, its lobster canneries, oyster beds, and the production of seed potatoes.

**Nova Scotia.**—The Province of Nova Scotia is 381 miles in length by 50 to 105 miles in width and has an area of about 21,068 square miles (see p. 2). The mainland is connected with the Province of New Brunswick by the Isthmus of Chignecto; the Island of Cape Breton forms the northeast portion. The latter is separated from the mainland by the narrow Strait of Canso and includes the famous salt-water Bras d'Or Lakes.

Nova Scotia is one of the leading provinces in the production of coal. The coalfields are bituminous, of good quality, well adapted to the production of coke and excellent for domestic use and for steam-raising purposes. The chief coal-fields are at Sydney and Inverness on Cape Breton Island, and at Pictou and Cumberland on the mainland.

On the Atlantic side, the mainland is generally rocky and open to the sweep of Atlantic storms; it is deeply indented and has numerous harbours providing safety for the large fishing fleets that support the extensive fishing industry of the Province (see Chapter XIV). The slopes facing the Bay of Fundy and the Gulf of St. Lawrence are sheltered from the Atlantic by low mountainous ridges not exceeding an altitude of 1,500 feet and running through the centre of the Province. In striking contrast to the Atlantic side, they present fertile plains and river valleys especially adapted by climate and situation to the growth of apples, pears and other fruits.

**New Brunswick.**—New Brunswick is nearly rectangular in shape with an area of 27,985 square miles and may be compared in size to Ireland (26,600 square miles). The Bay of Chaleur on the north, the Gulf of St. Lawrence and Northumberland Strait on the east, the Bay of Fundy on the south, and Passamaquoddy Bay on the southwest, provide the Province with a very extensive sea-coast. It adjoins the State of Maine on the west and the Province of Quebec on the north and northwest.

The conformation of New Brunswick is, in general, undulating, but to the east it attains its highest elevation of 2,690 feet in the vicinity of Grand Falls on the St. John River. In the northeastern half of the Province there are extensive areas



of Crown lands carrying valuable stands of merchantable timber. Numerous rivers provide access to the extensive lumbering areas and to attractive hunting and fishing resources. The Province is watered to the west and south by the St. John River, which, in its course of 400 miles, runs through country famed for its distinctive beauty.

While the forest resources are of first importance economically, large areas of rich agricultural land are found in the numerous river valleys, especially that of the lower St. John, and in the broad plains near the coast. Natural gas and petroleum are obtained in limited quantities and coal mining on a moderate scale is carried on in the Minto Basin at the head of Grand Lake.

**Quebec.**—Quebec is the largest province of Canada and occupies the area of British North America east of Hudson Bay, with the exception of Newfoundland (including the Coast of Labrador) and the other Maritime Provinces. It has an area (see p. 2) of 594,860 square miles, equal to the combined areas of France, Germany and Spain, but a large part of the surface is made up of Precambrian rocks of the Canadian Shield, which renders it unsuitable for agriculture. The Gulf of St. Lawrence and the River St. Lawrence penetrate the entire width of Quebec and divide the Eastern Townships and the Gaspé Peninsula to the south from the larger area of the Province to the north. North of the St. Lawrence the land takes the form of a ridge parallel to the river and rises from sea-level to the Height of Land at an elevation of from 1,000 to 3,000 feet from which it descends gently to sea-level at Hudson Bay and Hudson Strait.

With the exception of the treeless zone, extending north of latitude 58°, most of the Province supports a valuable tree growth varying from the mixed forests in the southwest to the coniferous forests in the east and north. In addition to extensive timber limits, which form the basis of a great pulp and paper industry (see Chapter XII), Quebec is the foremost of the provinces in the development of hydro-electric power (see Chapter XVI) and has available water-power resources, at ordinary minimum flow, almost equal to those of Ontario and Manitoba combined. Its asbestos deposits have long been known for their quality and extent. Extensive developments of gold and copper have taken place in the western part of the Province and the mineralized area is being extended year by year. Quebec is in second place in mineral production among the provinces of Canada (see Chapter XV). Its fisheries in the St. Lawrence River and Gulf are an important resource. The climate and soil of the upper St. Lawrence Valley and of the Eastern Townships are well suited to general farming operations, including dairying and the production of vegetables on a commercial basis.

**Ontario.**—Lying between Quebec on the east and Manitoba on the west, Ontario is usually regarded as an inland province but its southern boundary has a fresh-water shore line on the Great Lakes of 2,362 miles while its northern limits have a salt-water shore line of 680 miles on Hudson and James Bays. There is a tidal port at Moosonee at the southern end of James Bay. The most southerly point in the Province is Middle Island at 41° 41' N. latitude (this is also the most southerly point in Canada) and the most northerly latitude of the Province is 56° 50'. It has an area of 412,582 square miles.

As in Quebec, the surface of Ontario follows the conformation characteristic of the Precambrian Shield except in the Ontario Peninsula where the surface is low and level. The highest point in Ontario is 2,120 feet, on the promontory at the



northeastern corner of Lake Superior. Northwest from the Height of Land, the slope descends very gently to Hudson Bay where a large marginal strip (the Hudson Bay Lowlands) is less than 500 feet above sea-level.

Mining is a very important industry in the wide-spread Precambrian area; as in the adjoining Province of Quebec, Ontario is lacking in native coal but is rich in other minerals and contributes almost one-half the total mineral production of Canada. Gold, silver, nickel, copper, zinc, magnesium, dolomite, gypsum, salt and other minerals are mined commercially. Petroleum and natural gas are also produced on an important scale in the Ontario Peninsula (see Chapter XV).

The geographic position of Ontario on the Great Lakes waterways system permits coal to be transported economically from Pennsylvania and iron ore from Minnesota to provide the basis of a large iron and steel industry. There is a rich iron-ore development in the Steep Rock district west of Port Arthur and an abundance of natural resources has made Ontario the foremost industrial province of Canada (see Chapter XVII).

Possessed of excellent soil and a wide variety of climate, general farming is carried on extensively. In the Niagara Belt, fruit farming has been scientifically developed and is a highly specialized industry throughout the Ontario Peninsula.

Vast forest resources in proximity to hydro power (see Chapter XII) are the basis of large wood-using industries and the forests of the north are a rich fur preserve.

**Manitoba.**—Manitoba, covering 246,512 square miles, is roughly the size of France and is the most central of the provinces. Together with the Provinces of Saskatchewan and Alberta it constitutes the famous Prairie Belt or Interior Plain section of Canada—world renowned for the quality of its wheat.

The Province has a considerable area of prairie land but is also a land of wide diversity combining 400 miles of sea-coast (on a rocky belt along its northeastern boundary, bordering Hudson Bay); great areas of northern mixed forests; large lakes and rivers covering an area of 26,789 square miles; a belt of treeless prairie extending to the southeastern corner of the Province; and patches of open prairie overlain by very fertile soil of great depth. The surface of the Province as a whole is comparatively level, the average elevation being between 500 and 1,000 feet; the greatest height of 2,727 feet is Duck Mountain northwest of Lake Dauphin.

About three-fifths of the Province, east and north of Lake Winnipeg, is underlain with Precambrian rock in which the presence of rich deposits of base metals has been confirmed, as in Ontario and Quebec (see Chapter XV).

The Province, although regarded as basically agricultural, possesses a wealth of water-power resources (Manitoba ranks after Quebec, Ontario and British Columbia in this respect) that, together with mineral and forest riches, have brought about an expanding industrial development.

**Saskatchewan.**—Saskatchewan lies between Manitoba and Alberta extending, like each of the Prairie Provinces, from the International Boundary on the south to the 60th parallel of latitude which divides it from the Northwest Territories. It has an area of 251,700 square miles.

The northern half of the Province is abundantly watered by lakes and rivers and the topography is one of low relief. The Precambrian Shield, which covers most of Quebec, Ontario and Manitoba, penetrates over the northern third of Saskatchewan and has given evidence of potential richness of mineral wealth. This area is

also rich in timber resources while the southerly two-thirds of the Province is generally fertile prairie with soil of great depth. In normal years there is sufficient moisture for rapid growth and the abundant sunshine during the long summer season in this northern latitude quickly ripens the crops.

**Alberta.**—This Province, covering 255,285 square miles, lies between Saskatchewan and the Rocky Mountains. Like Saskatchewan, the southern part of the Province is in the dry, treeless prairie belt, changing to the north into a zone of poplar interspersed with open prairie. This gives way to mixed forests covering the more northerly parts. The Precambrian rocks enter Alberta at its northeast corner, so that, excepting the fringe of mountainous country on its western border, practically the whole of the Province is overlain by arable soil of great depth. Alberta has two marked features: (1) the great valley of the Peace River, that has already resulted in the extension of settlement farther north than in any other part of Canada; and (2) the wonderful grazing lands in the foothills district which, rising sharply on the west, commence the ascent that continues to the very peaks of the Rocky Mountains. The southern half of the Province, rising towards the west, lies at a general elevation of from 2,000 to 4,000 feet; but in the northern half, the slope descends until elevations of well under 1,000 feet are reached at Lake Athabaska in the northeast corner.

Alberta has the most extensive coal resources of any of the provinces and has become the leading producer of petroleum and natural gas. The Turner Valley and Leduc fields produce the bulk of Canadian oil; other fields such as Lloydminster, which is partly in Saskatchewan, Redwater and Princess are also being developed. Lumbering is important in the more mountainous western parts and in the north, but ranching is still pursued in the less populous sections. In the southern prairies there are considerable areas where the quantity and distribution of the natural precipitation makes permanent agriculture precarious and, in these areas, a number of large irrigation projects have been developed, taking their water supply from rivers rising in the mountains that form the western boundary of the Province. The climate of Alberta is a particularly pleasant one, cooler in summer than more eastern parts of the country and tempered in winter by the Chinook winds.

The coal and oil resources have provided the basis of an industrial development and Edmonton has become the railhead for the north country.

**British Columbia.**—British Columbia, the third largest and the most westerly province of Canada, includes many islands of the Pacific, notably the Queen Charlotte Islands and Vancouver Island, the area of the latter being about 12,408 sq. miles. The total area of the Province is 366,255 sq. miles.

The predominant feature of the Province is the parallel ranges of mountains that cover all except the northeast corner and produce a conformation characterized by high mountain ranges interspaced with valleys many of which are extremely fertile, with climatic conditions well adapted to mixed agriculture or fruit growing. Generally the agricultural areas of these valleys are relatively small and broken but there are two large areas in the Peace River Block and the Stuart Lake District that are rich and have great agricultural possibilities. The shore line of the Pacific is deeply indented with many inlets ideal for harbourage and has wonderful scenic aspects.

The wealth of forest resources supports the lumbering and pulp and paper industries and places British Columbia first among the provinces in the production of lumber and timber (see Chapter XII). The Province excels in fishery products, chiefly on account of its catches of the famous Pacific salmon. The mineral resources are remarkable for their variety and wealth. Production of the metals, gold, copper, silver, lead and zinc has played an important role in the economic life of the Province since its early days, while valuable coal deposits on Vancouver Island, and at Crowsnest and Fernie in the interior, have been worked for many years. In regard to water-power resources, British Columbia ranks after Quebec and Ontario (see Chapter XVI).

**Yukon and the Northwest Territories.**—North of the Western Provinces the Territories extend over an area of 1,511,979 square miles. This is largely an undeveloped domain, and for administrative purposes is divided into Yukon Territory and the Northwest Territories: the latter is subdivided into three Provisional Districts. This vast area is over twelve times the area of the British Isles and about one-half the area of the United States. Great rivers, like the Mackenzie and the Yukon, are found there, and large inland bodies of water, such as Great Slave and Great Bear Lakes. There are many indications of mineral wealth; a number of rich gold-bearing deposits are under development and many prospects are being investigated in the Yellowknife area. The radium mines of Great Bear Lake yield the only radium produced on the Continent.

The Alaska Highway, completed in 1943, links Yukon, through Edmonton, Alta., and cities of the Prairie Provinces with the United States. Airports and other facilities have been provided over wide sections of the Mackenzie Valley and Yukon, and travel and transport by air will, undoubtedly, have a great influence on the development of the Territories. Details regarding the resources and administration of these areas are given in Chapter XXIX.

## PART II.—GEOLOGY

For the latest material published under this heading see the 1947 edition of the Year Book, pp. 19-29. Reference to earlier articles will be found at the front of this edition.

## PART III.—GEOPHYSICS

Material on Gravity, Seismology and Terrestrial Magnetism will be found at pp. 18-27 of the 1948-49 edition of the Year Book.

## PART IV.—FAUNA AND FLORA

See list at the front of this edition for special material, under this heading, published in previous editions of the Year Book.

## PART V.—LANDS, PARKS AND GAME RESOURCES

Canada is a comparatively new country with resources that are, for the most part, in the early stages of development. The fur, fishery and forest resources have, it is true, been the basis of trade for two or three hundred years, but exploitation on the present commercial scale is of relatively recent growth. Nevertheless, much



effort has been directed to conservation in the cases of those resources that admit of such methods. Details of such policy are given in the chapters dealing with the individual resources.

Numerous surveys and investigations of the extent and value of the resources have been made from time to time and the results have been reviewed in special publications. Detailed information regarding individual natural resources will be found in the later chapters. The treatment of resources considered below is concerned only with those summary phases of the subject that can be regarded as falling under the definition of physiography used in its wider interpretation. A classification of lands resources, information on the National Parks and game resources and regulations fall properly under this head.

### Section 1.—Lands Resources

The figures of Table 1 show how the land area is classified as between present and potential agricultural lands, present and potential forested lands, and lands that are unproductive as regards surface resources. Between the totals of present and potential agricultural lands and the totals of forested lands there is, of course, duplication to the extent of the agricultural lands under forest. The figures regarding agricultural lands are based on estimates from the Decennial Census of 1941 for all but the Prairie Provinces, the 1946 Quinquennial Census being used for Manitoba, Saskatchewan and Alberta. The Dominion Forest Service supplies figures on forested lands and the Surveyor General and Chief of the Surveys and Engineering Branch those on the total land areas of Canada and the Provinces. Figures for Newfoundland are those of the 1945 Newfoundland Census.

#### 1.—Land Area, Classified as Agricultural, Forested or Unproductive

NOTE.—Land area is shown classified by tenure in Chapter XXIX.

Description	New-found-land <sup>1</sup>	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles
<b>Agricultural Land (Present and Potential)—</b>						
Occupied—						
Improved—Crops and summerfallow	25	741	906	1,366	9,600	14,972
Pasture.....	73	370	273	464	3,937	5,059
Other.....	..	41	90	100	623	849
Unimproved—Pasture.....	22	126	1,143	569	3,267	6,061
Forest (woodland)....	94	493	3,243	3,455	9,317	6,039
Other.....	..	55	308	240	1,478	2,001
Totals, Occupied.....	214	1,826	5,963	6,194	28,222	34,981
Unoccupied—						
Grass, brush, etc.....	..	64	3,677	1,056	1,500	5,899
Forested.....	..	80	3,000	9,500	36,893	61,990
Totals, Unoccupied.....	..	144	6,677	10,556	38,393	67,889
Non-forested.....	..	1,397	6,397	3,795	20,405	34,841
Forested.....	..	573	6,243	12,955	46,210	68,029
<b>Totals, Agricultural Land<sup>2</sup>.....</b>	<b>..</b>	<b>1,970</b>	<b>12,640</b>	<b>16,750</b>	<b>66,615</b>	<b>102,870</b>

For footnotes, see end of table, p. 17.



## 1. Land Area, Classified as Agricultural, Forested or Unproductive—concluded

Description	New-found-land <sup>1</sup>	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles
<b>Forested Land—</b>						
Softwood—Merchantable.....	..	90	4,600	5,000	202,080	36,900
Young growth.....	..	215	3,180	3,000	46,270	29,300
Mixed wood—Merchantable.....	..	150	820	7,000	24,880	24,100
Young growth.....	..	130	480	5,000	20,840	67,400
Hardwood—Merchantable.....	..	15	1,620	1,000	2,880	5,900
Young growth.....	..	10	850	1,000	5,750	10,200
Total Productive Forested Land.....	..	610	11,550	22,000	302,700	173,800
Unproductive Forested Land.....	..	--	50	190	69,590	63,400
Tenure—Privately owned.....	..	608	8,220	11,000	26,630	14,240
Crown land.....	..	2	3,380	11,190	345,660	222,960
<b>Totals, Forested Land.....</b>	<b>16,000</b>	<b>610</b>	<b>11,600</b>	<b>22,190</b>	<b>372,290</b>	<b>237,200</b>
<b>Net Productive Land<sup>2</sup>.....</b>	<b>..</b>	<b>2,007</b>	<b>17,997</b>	<b>25,985</b>	<b>392,695</b>	<b>272,041</b>
<b>Waste and Other Land<sup>3</sup>.....</b>	<b>..</b>	<b>177</b>	<b>2,746</b>	<b>1,488</b>	<b>131,165</b>	<b>91,241</b>
<b>Totals, Land Area.....</b>	<b>37,013</b>	<b>2,184</b>	<b>20,743</b>	<b>27,473</b>	<b>523,860</b>	<b>363,282</b>

Description	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and N.W.T. <sup>5</sup>	Canada
	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles
<b>Agricultural Land (Present and Potential)—</b>						
Occupied—						
Improved—Crops and summerfallow.....	14,071 <sup>6</sup>	53,456 <sup>6</sup>	29,496 <sup>6</sup>	1,038	4	125,671
Pasture.....	803 <sup>6</sup>	1,286 <sup>6</sup>	1,142 <sup>6</sup>	268		13,675
Other.....	397 <sup>6</sup>	868 <sup>6</sup>	662 <sup>6</sup>	89		3,723 <sup>7</sup>
Unimproved—Pasture.....	8,032 <sup>6</sup>	31,451 <sup>6</sup>	28,519 <sup>6</sup>	2,885		82,075
Forest (woodland).....	1,821 <sup>6</sup>	3,347 <sup>6</sup>	3,295 <sup>6</sup>	1,584		32,688
Other.....	925 <sup>6</sup>	2,430 <sup>6</sup>	1,654 <sup>6</sup>	438		9,529
Totals, Occupied.....	26,049 <sup>6</sup>	92,838 <sup>6</sup>	64,768 <sup>6</sup>	6,302 <sup>8</sup>	4	267,361 <sup>9</sup>
Unoccupied—						
Grass, brush, etc.....	8,541	9,242	26,872	2,948	10,065	69,864
Forested.....	16,000	23,000	45,000	11,450	4,000	210,913
Totals, Unoccupied.....	24,541	32,242	71,872	14,398	14,065	280,777
Non-forested.....	32,769	98,733	88,345	7,666	10,069	304,417
Forested.....	17,821	26,347	48,295	13,034	4,000	243,507
<b>Totals, Agricultural Land<sup>2</sup>.....</b>	<b>50,590</b>	<b>125,080</b>	<b>136,640</b>	<b>20,700</b>	<b>14,069</b>	<b>547,924<sup>10</sup></b>
<b>Forested Lands—</b>						
Softwood—Merchantable.....	1,830	1,500	7,700	35,400	4,200	299,300
Young growth.....	9,110	6,420	24,070	50,490	22,800	194,855
Mixed wood—Merchantable.....	1,100	2,000	9,360	--	1,000	70,410
Young growth.....	5,120	9,390	31,430	--	5,000	144,790
Hardwood—Merchantable.....	1,680	2,860	3,620	--	2,800	22,375
Young growth.....	11,600	23,890	16,880	--	11,200	81,380
Total Productive Forested Land.....	30,440	46,060	93,060	85,890	47,000	813,110
Unproductive Forested Land.....	62,500	40,000	37,560	128,560	76,000	477,850
Tenure—Privately owned.....	11,830	10,257	10,004	7,386	--	100,175
Crown land.....	81,110	75,503	120,616	207,064	123,000	1,190,785
<b>Totals, Forested Land.....</b>	<b>92,940</b>	<b>86,060</b>	<b>130,620</b>	<b>214,450</b>	<b>123,000</b>	<b>1,306,960<sup>9</sup></b>
<b>Net Productive Land<sup>3</sup>.....</b>	<b>125,709</b>	<b>184,793</b>	<b>218,965</b>	<b>222,116</b>	<b>133,069</b>	<b>1,595,377<sup>10</sup></b>
<b>Waste and Other Land<sup>4</sup>.....</b>	<b>94,014</b>	<b>53,182</b>	<b>29,835</b>	<b>137,163</b>	<b>1,325,715</b>	<b>1,866,726<sup>10</sup></b>
<b>Totals, Land Area.....</b>	<b>219,723</b>	<b>237,975</b>	<b>248,800</b>	<b>359,279</b>	<b>1,458,784</b>	<b>3,499,116<sup>9</sup></b>

<sup>1</sup> Island of Newfoundland only, 1945 Census.<sup>2</sup> These totals present agricultural land of all classes and land that has agricultural possibilities in any sense.<sup>3</sup> Total agricultural land plus forested land minus forested agricultural land.<sup>4</sup> Includes open muskeg, rock, road allowances, urban land, etc.<sup>5</sup> The figures given are strictly estimates.<sup>6</sup> 1946 Census data.<sup>7</sup> Includes 4 sq. miles of occupied land in Yukon and the Northwest Territories.<sup>8</sup> An estimate from provincial sources places the total area of land suitable for tillage at 6,626 sq. miles.<sup>9</sup> Includes the Island of Newfoundland but not Labrador.<sup>10</sup> Does not include the Province of Newfoundland.

## Section 2. Parks and Other Areas under the Federal District Commission

The Federal District Commission, known as the Ottawa Improvement Commission previous to 1927, was established by Parliament in 1899 for the beautification and improvement of the city of Ottawa, Canada's Capital, by the construction and maintenance of parks and driveways.

In 1927 the scope of the Commission's operations was widened to include the adjoining districts, and its membership increased from eight to ten, including a representative of the city of Hull, Que. Subsequently the Commission was given the additional responsibility of maintaining the grounds of all Federal Government Buildings in Ottawa and vicinity. By amendment to the Federal District Commission Act, 1946, the membership of the Commission was increased to nineteen, thus providing for a more national character in its composition by the provision for inclusion therein of a representative from each of the provinces of Canada.

Departments of the Federal Government from time to time ask the Commission to carry out improvements to the grounds of newly constructed Government buildings on the basis of full reimbursement for the actual costs entailed. The Commission has the trained personnel and the special equipment required for such work.

Funds for the purposes of the Commission are provided by statutory grants and votes of Parliament.

In the cities of Ottawa and Hull and immediate environs, an area comprising 1,878 acres is administered by the Commission and eighteen parks have been developed. In addition, the large and beautiful area known as Gatineau Park, described under a separate heading below, has been established in the Laurentian Hills. Twenty-two miles of landscaped driveways have been built and are being maintained.

**Gatineau Park.**—Gatineau Park, situated in the Province of Quebec about eight air miles from the Federal Capital, is the only National Park administered and controlled by the Federal District Commission. It comprises at present about 24,000 acres of wooded hills, valleys, lakes and streams located in the southerly fringe of the Laurentians, the oldest mountains in Canada, and is being preserved in its natural state for the enjoyment of the public.

The Park is a game sanctuary. Deer, bear, fox, beaver, mink, raccoon and other fur-bearing animals are quite numerous. Well-located trails, picnic spots and camping sites have been provided for the pleasure and healthful recreation of the public. Gatineau Park furnishes excellent opportunities for the enjoyment of skiing and is the principal centre in the Ottawa district for this popular winter sport.

Further development of this area is planned which will include an addition of 26,000 acres, overnight cabins, administration buildings, shelters, refectories, bath-houses and other essential structures.

The Park is administered by a Superintendent and a force of five rangers who act also as game wardens, police constables and fire guards.

**The National Capital Plan.\*** The Master Plan to guide the long-range development of Ottawa and the 900-square mile National Capital District and to create a Capital in keeping with Canada's achievements and status as a

\* Prepared by the Federal District Commission, Ottawa.

nation, was completed at the end of 1948. A preliminary report by Jacques Greber, of Paris, noted French city planner and consultant to the Canadian Government on the project, was forwarded to the Government through the National Capital Planning Committee and the Federal District Commission and tabled in the House of Commons on Apr. 30, 1949.

In addition to meeting the present and future needs of a National Capital with its governmental, diplomatic, cultural and tourist requirements, the Master Plan provides a solution to the present town-planning problems of Ottawa which, with Hull, is the centre of an urban area of approximately 250,000 inhabitants. The plan makes provision for an ultimate maximum population of between 500,000 and 600,000 within a five-mile radius of the Parliament Buildings.

The Plan proposes that the ultimate limits of the urban area be surrounded by a "green belt", a strip of land three to five miles wide zoned for agricultural use and as permanent open space. In addition to preventing uncontrolled, uneconomic expansion and undesirable ribbon development along highways, the green belt will provide a lasting source of farm and market-garden produce close to the urban population.

Careful consideration is given to the expanding needs of government, and sites are proposed for future public buildings and institutions. These include a National Institute of Fine Arts to re-house the National Gallery and provide space for a national theatre, national botanical and zoological gardens, a national sports centre, an auditorium capable of seating 10,000 persons and suitable for national and international gatherings, and a national library. New buildings on appropriate sites are proposed for the Dominion Bureau of Statistics, the Department of Veterans Affairs, the Government Printing Bureau, the National Film Board and the Department of National Defence. Where practical, new departmental buildings are located away from the centre of the city to avoid traffic congestion and to enable government employees to live near their work.

The development of downtown Wellington Street on which the Parliament Buildings are located is given particular attention, and the siting and architectural style of new buildings is designed to enhance the magnificent panoramic view of the skyline of the Capital which is obtained from the Quebec side of the Ottawa River.

The Plan proposes extensive development of the National Capital District, 536 square miles of which lie in the Province of Quebec and 364 square miles in the Province of Ontario. Long known as the summer and winter playground of the Capital, the District (particularly the Gatineau region of Quebec) is one of the most attractive tourist areas on the continent.

After nearly 100 years of uncontrolled industrial, commercial, transportation and residential development without regard for economic expansion or future needs, or for its requirements as a capital, the Capital's basic planning problems are to be solved by a series of comprehensive, long-range re-planning projects. The most important of these is the relocation of railways and industries. The present network of railway lines with their attendant yards and services, which now occupies valuable downtown land, interferes with the free flow of traffic and has caused the development of blighted and depressed areas throughout the city, is to be relocated in a belt around the south and east edges of Ottawa and north and west sides of Hull. New and established industries requiring rail services which are now scattered throughout the built-up areas with no room for



further expansion are to be re-located or established in industrial areas along the new rail belt. The Federal District Commission has acquired about 2,000 acres of land for future industrial areas.

Abandoned railway rights-of-way throughout the city will form the basis of a new arterial road system which will link with and extend the present 22-mile Federal District Commission Driveway System and provide a permanent solution to the Capital's traffic circulation problems. Much of the re-planning is expected to pay for itself through the increase in land values and the considerable saving which will result from unhampered traffic facilities.

Execution of the Capital Plan is based on the co-operation of the municipalities concerned and of the Provinces of Ontario and Quebec. The Federal Government, through the Federal District Commission, will be responsible for carrying out those parts of the Plan that are of a national character and are beyond the needs and resources of Ottawa, Hull and the 28 other municipalities in the District. Costs will be met out of the National Capital Fund, established by Parliament in 1948 with an initial grant of \$2,500,000.

Proposals of an urgent nature will be carried out over the next few years according to a schedule of operations. Others, of a more long-range character will be executed gradually over the next half century as the resources of the nation permit.

### Section 3.—National and Provincial Parks

**National Parks.\***—The National Parks are dedicated to the benefit, education and enjoyment of the people of Canada and are maintained by the Federal Government as a means of preserving regions of outstanding natural beauty and national interest. These parks provide remarkable opportunities for recreation, relaxation and nature study. Differing widely in character and purpose, they include scenic and recreational parks situated from the Atlantic Coast to the Rocky and Selkirk Mountains; the national wild animal parks—areas set aside primarily for the protection and propagation of species once in danger of extinction; and the national historic parks. The administration of the parks is directed by the National Parks Service of the Lands and Development Services Branch, Department of Mines and Resources. Maintenance of the park areas is carried out by the respective Park Superintendents and their staffs, and major developments by the Engineering Service. Also under the supervision of the National Parks Service are the historic sites of national importance that have been acquired throughout the country (see pp. 78-90 of the 1938 Year Book).

In the National Parks all wildlife is rigidly protected and, as far as possible, primal natural conditions are maintained. Biological conditions in park waters are under constant scientific supervision, and modern management procedures, including stocking and transfer of game fish, used to maintain or improve angling. Opportunities for outdoor life and recreation have been increased by the provision of equipped camp-grounds, bath-houses, and children's playgrounds, as well as golf courses, tennis courts, bowling greens, hot mineral-spring swimming pools and winter sports facilities. Accommodation is provided in many of the parks by modern hotels, bungalow cabins and chalets operated by private enterprise. Rail, air and highway transportation systems serve the parks, and more than 700 miles

\* Prepared under the direction of R. A. Gibson, Director, Lands and Development Services Branch, Department of Mines and Resources, Ottawa.



of park highways and 2,800 miles of trails have been built to provide access to outstanding scenic regions. To assist in forest conservation and other aspects of park administration 1,250 miles of telephone lines have been constructed. A number of these lines link fire lookout towers and warden's cabins with park headquarters, and in some of the parks two-way radio equipment is used to maintain communication between headquarters and actual fire-fighting operations.

*Scenic and Recreational Parks.*—The scenic and recreational parks include regions of superb beauty and grandeur in the Rocky and Selkirk Mountains of Western Canada. Among these are: in Alberta, Banff, Jasper, and Waterton Lakes National Parks, on the eastern slope of the Rockies; in British Columbia, Kootenay and Yoho, on the western slope of the Rockies and Glacier and Mount Revelstoke National Parks in the Selkirks. While these parks bear a general resemblance to one another, each possesses distinctive characteristics and phenomena, fauna and flora, and types of scenery. Banff and Jasper Parks contain the famous holiday resorts Lake Louise, Banff, and Jasper. Direct connection between these parks is provided by the Banff-Jasper Highway, one of the notable scenic mountain highways in the world.

Eastward from the mountains are Prince Albert National Park in Saskatchewan, a typical example of the forest and lake country bordering the north-western plains region; and Riding Mountain National Park in Manitoba, a well-timbered area dotted with numerous lakes, at a general altitude of 2,000 feet above sea-level. In Ontario there are three small parks established primarily as recreational areas. They are Point Pelee, Georgian Bay Islands, and St. Lawrence Islands National Parks.

In the Maritime Provinces, three remarkable areas have been established as National Parks. Cape Breton Highlands National Park, situated in the northern part of Cape Breton Island, N.S., has an area of 390 square miles. Its rugged and picturesque shore line, indented by numerous bays and coves, and its rolling mountainous interior provide a delightful setting reminiscent of Scotland. Girdled on its eastern, northern, and western sides by a modern highway called the Cabot Trail, and possessing such features as trails, beaches, tennis courts, and golf links, the park offers many diversions to the visitor. Prince Edward Island National Park, containing an area of seven square miles, extends a distance of about 25 miles along the northern shore of the island province. Its chief attractions are magnificent sand beaches which invite ocean bathing under ideal conditions. The park also contains "Green Gables", the farmhouse made famous by the novels of L. M. Montgomery. Well maintained golf links, tennis courts, bowling greens, campgrounds, and marine drives enhance its attractions. Fundy National Park was established in New Brunswick in 1947 and has an area of nearly 80 square miles. It is situated mainly in Albert County and lies between the Goose and Upper Salmon (Alma) Rivers. It extends northward from the Bay of Fundy for a distance of about nine miles. Development is under way including the provision of facilities for tourist accommodation and recreation.

*Wild Animal Parks.*—While all National Parks are wild animal sanctuaries, two are maintained primarily for the protection of big game species such as buffalo, elk, moose and other deer: Elk Island National Park in Alberta, 30 miles from Edmonton, a fenced area containing more than 1,000 head of buffalo as well as large herds of elk, moose, and mule deer; and Wood Buffalo Park, an immense region of forests and open plains extending on each side of the boundary between

Alberta and the Northwest Territories and containing a large herd of buffalo and other species of wildlife. Elk Island National Park is also a popular recreational centre.

*National Historic Parks and Sites.*—Canada has nine National Historic Parks which preserve places of great historic interest in the early development of this continent. All but one of these parks are in Eastern Canada. In Nova Scotia are Port Royal (Habitation) at Lower Granville on the Annapolis Basin; Fort Anne nearby; and the Fortress of Louisbourg on Cape Breton Island. Fort Beauséjour is on the Isthmus of Chignecto in New Brunswick. In Quebec are Fort Lennox on Ile-aux-Noix in the Richelieu River, and Fort Chambly, also on the Richelieu, at Chambly. Fort Wellington, overlooking the St. Lawrence at Prescott, and Fort Malden, at Amherstburg, are in Ontario. Fort Prince of Wales, near Churchill, Man., is the most northerly fortress on the North American Continent.

The National Parks Service is also charged with the preservation, restoration and marking of historic sites throughout Canada. In the work of selecting and acquiring sites worthy of commemoration, the Service has the assistance of the Historic Sites and Monuments Board of Canada, a group of recognized authorities on the history of the section of the country they represent. Of the sites considered by the Board, 360 have been suitably marked and 211 have been recommended for future attention.

## 2. — Locations, Date Established, Areas and Characteristics of the National Parks

Park	Location	Date Estab- lished	Area  sq. miles	Characteristics
<b>Scenic and Recreational Parks</b>				
Banff.....	Western Alberta, on east slope of Rockies.	1885	2,564.00	Mountain playground containing famous resorts, Banff and Lake Louise. Typical example of central Rockies, with massive ranges, ice-fields, alpine valleys, glacier-fed lakes and hot mineral springs. Big-game sanctuary. Recreations: climbing, motoring, riding, bathing, golf, tennis, fishing, skiing.
Yoho.....	Eastern British Columbia, on west slope of Rockies.	1886	507.00	Rugged scenery on western slope of Rockies. Contains wonderful Yoho Valley, with its numerous waterfalls; Kicking Horse Valley; Emerald, O'Hara, and Wapta Lakes; natural bridge. Alpine climbing centre.
Glacier.....	Southeastern British Columbia, on the summit of the Selkirk Range.	1886	521.00	Superb example of Selkirk Mountain region, with snow-capped peaks, glaciers, luxuriant forests, alpine wild flower-gardens, numerous big game. Illecillewaet and Asulkan Glaciers; Rogers Pass; and famed Macdonald tunnel.
Waterton Lakes.....	Southern Alberta, adjoining Glacier Park in Montana, U.S.A.	1895	204.00	Canadian section, Waterton-Glacier International Peace Park. Mountains noted for beauty of colouring; lovely lakes, picturesque trails, waterfalls. Recreations: motoring, riding, fishing, tennis, golf, camping.
Jasper.....	Western Alberta, on east slope of Rockies.	1907	4,200.00	Rich in historical associations. Immense region of majestic peaks, deep canyons, beautiful lakes, containing famous resort, Jasper. Also Miette Hot Springs, Maligne Lake, Mount Edith Cavell and Columbia Ice-field. Big-game sanctuary. Recreations: motoring, climbing, riding, bathing, fishing, golf, tennis, skiing.

2. — Locations, Date Established, Areas and Characteristics of the National Parks—  
continued

Park	Location	Date Estab- lished	Area  sq. miles	Characteristics
<b>Scenic and Recreational Parks—conc.</b>				
Mount Revelstoke....	Southeastern British Columbia, on the west slope of Selkirk.	1914	100.00	Alpine plateau on summit of Mount Revelstoke, accessible by spectacular 18-mile drive from Revelstoke. Contains mountain lakes, alpine flora, game sanctuary, camp-sites, winter sports.
St. Lawrence Islands.	In St. Lawrence River between Morrisburg and Kingston, Ont.	1914	190.00 (acres)	Mainland reservation and thirteen islands among "Thousand Islands". Recreational area; camping, fishing, bathing.
Point Pelee.....	Southern Ontario, on Lake Erie.	1918	6.04	Most southerly mainland point in Canada (41° 41' N.). Recreational area with unique flora and fine beaches. Resting place for many migratory birds. Bathing, camping.
Kootenay.....	Southeastern British Columbia, on the west slope of Rockies.	1920	543.00	Mountain park bordering Vermilion-Sinclair section of Banff-Windermere Highway. Contains Sinclair Canyon, Radium Hot Springs, Marble Canyon. Big-game sanctuary. Recreations: motoring, bathing, camping.
Prince Albert.....	Central Saskatchewan, north of Prince Albert.	1927	1,496.00	Forested lakeland of northwestern Canada with extensive waterways and fine beaches. Interesting fauna; summer resort. Recreations: boating, bathing, fishing, camping, tennis, golf.
Riding Mountain....	Southwestern Manitoba, west of Lake Winnipeg.	1929	1,148.00	Rolling woodland, with crystal lakes, on summit of Manitoba escarpment. Natural home for big game, including elk, deer, moose. Summer resort. Recreations: bathing, boating, fishing, tennis, golf, camping, lawn bowling.
Georgian Bay Islands	In Georgian Bay, north of Midland, Ont.	1929	5.37	Thirty islands in Georgian Bay. Recreational and camping area, boating, bathing, fishing, on Beausoleil Island. Unique limestone formations and caves on Flowerpot Island.
Cape Breton Highlands.	Northern part of Cape Breton Island, N.S.	1936	390.00 (approx.)	Outstanding example of rugged coast line with mountain background. Remarkable views of Atlantic Ocean and Gulf of St. Lawrence visible from highway; Cabot Trail. Recreations: bathing, boating, golf, tennis, deep-sea fishing, camping.
Prince Edward Island.	North shore of Prince Edward Island.	1937	7.00	Strip 25 miles long on north shore. Recreational area with magnificent beaches. Contains famed "Green Gables" farmstead. Recreations: bathing, boating, fishing, golf, lawn bowling, camping.
Fundy.....	On Bay of Fundy between Moncton and Saint John in New Brunswick.	1947	79.5	Forested region, rugged terrain, wild life sanctuary. Recreations: golf, tennis, lawn bowling, bathing, fishing, camping.
<b>Wild Animal Parks</b>				
Elk Island.....	Central Alberta, near Lamont.	1913 (Re-served 1906)	75.00	Fenced reserve containing a large herd of plains buffalo; also numerous deer, elk and moose. Recreational area at Astotin Lake; camping, boating, bathing, tennis and golf.

## 2. — Locations, Date Established, Areas and Characteristics of the National Parks— concluded

Park	Location	Date Estab- lished	Area	Characteristics
<b>Wild Animal Parks</b> —concluded			sq. miles	
Wood Buffalo <sup>1</sup> .....	Partly in Alberta (13,675 sq. miles) and partly in Northwest Territories (3,625 sq. miles), west of Athabaska and Slave Rivers.	1922	17,300.00 (approx.)	Immense unfenced area of forests and open plains, dotted with lakes and coursed by numerous streams and rivers. Contains a large herd of buffalo, developed from the native "woodland" type and surplus plains buffalo from Buffalo National Park; also bear, beaver, caribou, deer, moose and waterfowl. Area as yet undeveloped.
<b>Historic Parks</b>			acres	
Fort Anne.....	Nova Scotia (Annapolis Royal).	1917	31	Site of early Acadian settlement of Port Royal. Contains well-preserved fortifications of earthworks type; also museum housing a fine historical library and numerous exhibits relating to early periods.
Fort Beauséjour.....	New Brunswick, near Sackville.	1926	80	Site of French fort erected in middle of 18th century. Renamed Fort Cumberland by British on capture in 1755; original name since restored. Contains museum with many exhibits relating to history of region.
Fortress of Louisbourg.	Cape Breton Island, N.S., 25 miles from Sydney.	1941	340	Old walled city and strategic military and naval station built by the French, 1720-40. Captured by the British in 1758, it was destroyed in 1760. A museum on the site contains interesting mementoes of historic past.
Port Royal.....	Lower Granville, N.S., 8 miles from Annapolis Royal.	1941	17	Reconstruction on the exact site of the Port Royal "Habitation" erected by DeMonts and Champlain in 1605. The original group of buildings, which sheltered the first permanent European settlement in Canada, was destroyed in 1613.
Fort Chambly.....	Chambly, Que.....	1941	2.5	French fort first constructed in 1665 on Richelieu River. Rebuilt of stone in 1711, it figured in several wars. Contains a museum housing many interesting exhibits. A military cemetery outside walls of fort is included in park area.
Fort Lennox.....	Ile-aux-Noix, Que., near St. Jean.	1941	210	Military post constructed by British on site of early French fort, to command Richelieu River water route from south. Several well-preserved stone buildings together with the earthworks and moat remain.
Fort Wellington.....	Prescott, Ont.....	1941	8.5	Contains well-preserved earthworks, block-house and other buildings constructed by British as base for defence of communications between Kingston and Montreal. The block-house contains a small museum.
Fort Malden.....	Amherstburg, Ont..	1941	5	Situated on the banks of the Detroit River, the site of one of the principal frontier military posts in Upper Canada. A new museum building contains interesting exhibits of the region.
Fort Prince of Wales.	Northern Manitoba, near Churchill.	1941	50	Massive stone fort built 1733-71, to secure control of Hudson Bay for Hudson's Bay Company and England. The fort was captured and partially destroyed by a French force in 1782.

<sup>1</sup> Administered by the Bureau of Northwest Territories and Yukon Affairs of the Lands and Development Services Branch, Department of Mines and Resources, Ottawa.



**Provincial Parks.**—In addition to the National Parks already described, most of the provinces have established Provincial Parks. These parks, as in the case of the National Parks, are areas of great scenic or other interest maintained for the benefit of present and future generations. The Provincial Parks are administered by the Provincial Governments concerned and in most cases they have not yet reached the degree of development which marks the National Parks. In Prince Edward Island, Nova Scotia, New Brunswick and Manitoba there are no Provincial Parks. Table 3 shows the principal Provincial Parks, by provinces.

### 3.—Locations, Date Established, Areas and Characteristics of the Provincial Parks

Province and Park	Location	Date Established	Area	Characteristics
			acres	
<b>Newfoundland—</b> Serpentine.....	South of Humber Arm, west coast.	1939	26,880	Undeveloped.
<b>Quebec—</b> Laurentides.....	25 miles north of Quebec City, on both sides of Quebec-Chicoutimi highway.	1895	2,560,000	Altitude 3,000 ft., numerous lakes, tumultuous rivers. Speckled trout, moose, deer, black bears, wolves, etc. No hunting. Two hotels and 20 fishing camps.
Trembling Mountain.	80 miles north of Montreal. Mont-Tremblant Village close to the southern section of Park.	1895	770,560	Famous resort area, both summer and winter. Ski school and lifts, 40 miles of ski trails, 9 ski-slopes. Lac Tremblant 750 ft. Highest peak Mont-Tremblant, 3,100 ft.
Gaspesian.....	Gaspe Peninsula.....	1937	320,000	Established to preserve caribou and wild life on south side of St. Lawrence. Accessible from Ste-Anne des Monts and Gaspé. Speckled trout; 2 fishing camps. Includes the highest peaks of the Shickshock Mountains. Highest peak Mount Jacques-Cartier, 4,300 ft.
Mount Orford.....	On Orford Mountain, 15 miles west of Sherbrooke	1938	9,425	Altitude 2,860 ft. Skiing and golfing in season.
Mont-Laurier Senneterre Road Fish and Game Reserve.	In western part of Province 140 miles northwest of Montreal on both sides of route Montreal-Abitibi.	1939	2,069,760	Altitude 1,200 ft. Numerous lakes and rivers. Trout, pike, pickerel and bass. Two establishments to accommodate travellers and stopping place maintained by Department of Game and Fisheries.
Chibougamau Fish and Game Reserve.	30 miles west of Lake St. John. Strip 80 miles long on both sides of Lake Chibougamau highway.	1946	1,088,000	Altitude 1,300 ft. Numerous lakes and rivers. Trout, pike and pickerel.
<b>Ontario—</b> Algonquin.....	In southeastern Ontario in the District of Nipissing and the County of Haliburton, 141 miles north of Toronto, 105 miles west of Ottawa.	1893	1,754,240	Wilderness area, wildlife preserve. Hotels, summer cottage sites, camping facilities, canoe trips, fishing, bathing.
Rondeau.....	In southwestern Ontario in the County of Kent, 20 miles southeast of Chatham, 70 miles east of Windsor.	1894	5,120	Partly cultivated, fine timber stands. Enclosed and wild animals. Fishing, duck-hunting, camping facilities, summer cottage sites, restaurant, store, dance pavilion, other recreational facilities.

### 3. Locations, Date Established, Areas and Characteristics of the Provincial Parks continued

Province and Park	Location	Date Estab- lished	Area	Characteristics
<b>Ontario—conc.</b>			acres	
Quetico.....	In northwestern Ontario in the Rainy River district. Southern boundary adjoins the International Boundary midway between Port Arthur and Fort Frances.	1913	1,190,400	Wilderness area, wildlife preserve. Camping facilities, canoe trips, fishing.
Ipperwash Beach..	In southwestern Ontario in the County of Lambton, on Lake Huron, 100 miles north of Windsor, 50 miles north of Chatham.	1937	109	Sand beach, woodland area. Fishing, camping facilities, bathing.
Lake Superior.....	In northeastern Ontario in the District of Algoma, on Lake Superior, 70 miles (approx.) north of Sault Ste. Marie.	1944	345,600	Wilderness area, wildlife preserve. Fishing.
Sibley.....	In northwestern Ontario in the Thunder Bay district. On north shore of Lake Superior, 40 miles northeast of Port Arthur and Fort William.	1944	39,040	Wilderness area, wildlife preserve.
<b>Saskatchewan—</b>				
Cypress Hills.....	South of Maple Creek near United States boundary.	1932	10,880	Forest area. Bungalow, lodge and cabin accommodation, auto camp.
Duck Mountain...	15 miles northeast of Kam-sack.	1932	51,840	Forest and lake area. Beaches. Fish and wild life.
Good Spirit Lake.	20 miles west of Canora....	1932	3,827	Camp and picnic grounds. Fishing, swimming.
Greenwater Lake.	North of Kelvington.....	1932	22,240	Forest and lake area. Swimming, fishing.
Katepwa Point....	60 miles northeast of Regina on Qu'Appelle Lakes.	1932	17	Camp kitchens. Boating, fishing, swimming.
Little Manito.....	On Manitou Lake.....	1932	238	Medicinal waters. Chateau, cabin and tourist accommodation.
Moose Mountain...	15 miles north of Carlyle.	1932	98,560	Lake area. Poplar and white birch stands. Fishing.
Nipawin.....	35 miles northwest of Nipawin.	1934	161,280	Lodge pole pine. Camping, trout fishing.
Lac La Ronge.....	190 miles north of Prince Albert, Sask.	1939	729,600	Lake area; spruce and poplar. Tourist accommodation, trout fishing.
<b>Alberta—</b>				
Aspen Beach.....	On shore of Gull Lake, west of Lacombe.	1930	17	Summer village lake front. Swimming and picnic facilities.
Ghost River.....	On Ghost and Bow Rivers west of Calgary.	1930	536	Artificial lake. Cottages and picnic ground.
Park Lake.....	North and west of Leth-bridge.	1930	37	Picnic facilities.
Saskatoon Moun- tain Reserve.	In Grande Prairie district.	1930	3,000	Mountain lookout.

3. Locations, Date Established, Areas and Characteristics of the Provincial Parks  
continued

Province and Park	Location	Date Estab- lished	Area	Characteristics
<b>Alberta—conc.</b>			acres	
Sylvan Lake.....	On shores of Sylvan Lake, 11 miles west of Red Deer.	1930	9	Summer village lake front. Swimming, picnic and camp ground.
Writing-on-Stone Reserve.	On Milk River east and north of Coutts.	1930	796	Natural obelisks with undeciphered hieroglyphics. Summer village.
Rochon Sands....	7 miles west, 9 miles north of Stettler on Buffalo Lake.	1931	128	Summer village.
Lundbreck Falls..	West of Macleod on Crownest Pass Highway.	1932	14	Fishing. Picturesque falls.
Saskatoon Island..	West of Grande Prairie....	1932	250	Picnic ground.
Dilberry Lake Reserve.	On Alberta-Saskatchewan boundary near Chauvin.	1933	78	Picturesque lake.
Bad Lands Reserve.	North of Drumheller....	1934	1,800	Fossilized remains of prehistoric animals.
Little Fish Lake..	25 miles east of Drumheller.	1934	18	Boating and swimming, picnic grounds.
Hommy.....	Near Albright.....	1935	6	Picnic and outing facilities.
Assineau Reserve.	On the Assineau River, south of Lesser Slave Lake.	1936	37	Large spruce preserve.
Wapiti Reserve...	10 miles south of Grande Prairie.	1936	22	Canyon in the Wapiti River area. Big-game hunting base.
Little Smoky Reserve.	On Little Smoky River, 12 miles south of Falher.	1937	35	Picnic ground and base for big-game hunting.
Taber.....	1 mile west 1 mile north of Taber on south shore of Oldman River.	1938	45	Picnic and sports ground.
Elkwater Lake....	On south shore of lake at foot of Cypress Hills.	1947	378	Cottages, recreation and camp grounds. Limited transit accommodation.
Crimson Lake....	9 miles northwest of Rocky Mountain House.	1948	900	Cottages. Swimming, fishing, picnic and sports ground.
Fort Fork.....	9 miles southwest of town of Peace River.	1948	2	Site of old fort established by Sir Alexander Mackenzie in 1792.
Red Lodge.....	9 miles west of Bowden on Little Red Deer River.	1948	45	Swimming. Picnic and sports ground.
"Twelve-foot" Davis.	On edge of valley overlooking town of Peace River.	1948	2	Viewpoint above junction of Harmon, Peace and Smoky Rivers. Site of "Twelve-foot" Davis' grave.
Woolford.....	6 miles east of Cardston...	1948	68	Island in St. Mary's River. Picnic and recreation grounds.
Kinbrook Island..	Island in Lake Newell, 9 miles south of Brooks.	1949	90	Island connected by causeway to lake shore. Boating and swimming; recreation and picnic grounds.
Gooseberry Lake.	North of Consort.....	1931	320	Sports ground. Cottages. Transit accommodation.
<b>British Columbia—</b>				
Strathcona.....	Campbell River, Vancouver Island.	1911	529,920	Oldest B.C. Provincial Park, situated in the rugged centre of Vancouver Island. Many glaciers, alpine meadows and lakes. Della Falls, one of the world's highest. Undeveloped and mostly inaccessible.

### 3. Locations, Date Established, Areas and Characteristics of the Provincial Parks— continued

Province and Park	Location	Date Estab- lished	Area	Characteristics
<b>British Columbia</b> —con.			acres	
Mt. Robson.....	Mt. Robson, adjacent to Jasper Park.	1913	513,920	Rocky Mountain park featuring Mt. Robson, highest peak in the Canadian Rockies, Berg Lake and impressive glaciers. Access to Berg Lake Camp by horse trail.
Swan Lake.....	Pouce Coupe, northeast B.C., near Alberta boundary.	1918	166	Swimming and picnic area. Road access.
John Dean.....	Sidney, near Victoria, Vancouver Island.	1921	98	A mountain viewpoint overlooking the Saanich Peninsula and Gulf Islands. Primeval forests and wildflowers. Picnic grounds and hiking trails. Accessible by road.
Kokanee Glacier..	Near Nelson, B.C.....	1922	64,000	High mountain park featuring Kokanee Glacier and several scenic lakes. Fishing, mountaineering and skiing. Poor road and trail access.
Mt. Assiniboine...	South of Banff.....	1922	12,800	An outstanding area of Rocky Mountain scenery. Mt. Assiniboine and small lakes. Hiking, riding, fishing, skiing. Access by horse trail.
Nakusp Hot Spring.	Nakusp, Arrow Lakes, southeast B.C.	1925	127	Hot springs. Access by 8 miles of trail.
Salt Lake.....	Prince Rupert.....	1925	87	Community swimming and picnic area. Access by ferry from Prince Rupert.
Sir Alexander MacKenzie.	Ocean Falls, west coast...	1926	13	Historic monument commemorating end of Sir Alexander MacKenzie's famous overland journey. Accessible by boat.
Garibaldi.....	Haney - Squamish, lower mainland, north of Van- couver.	1927	612,615	An outstanding scenic park with mountain lakes, peaks, and glaciers, flower meadows and interesting geological features. Potential winter sports area. Access by trail from several points on the Pacific Great Eastern Railway.
Princeton.....	Princeton, south central B.C.	1928	341	Local ski grounds, accessible by road.
Sooke Mountain..	Victoria, Vancouver Island	1928	1,446	Undeveloped mountain park.
Inonoaklin.....	Edgewood, south central B.C.	1929	6	Community playground and swimming area.
Keremeos Columns.	Keremeos, south central B.C., near U.S. border.	1931	720	A columnar geological formation; not readily accessible.
Nakusp Recrea- tion.	Nakusp, Arrow Lakes, southeast B.C.	1931	84	Community playground.
Westbank.....	Westbank, Okanagan, south central B.C.	1931	2	Community swimming and picnic area. Road access.
Westview.....	Powell River, south coast- al, northwest of Van- couver.	1931	10	Undeveloped community playground.
Deadman's Island.	Burns Lake, central B.C...	1933	1	Local playground. Picnic grounds.
Lockhart Beach...	Kootenay Lake, southeast B.C.	1933	5	Roadside beach.



3.—Locations, Date Established, Areas and Characteristics of the Provincial Parks—  
continued

Province and Park	Location	Date Estab- lished	Area	Characteristics
<b>British Columbia</b> —con.			acres	
Strombeck.....	Alice Arm on Portland Canal.	1933	1	Local playground.
Beaton.....	Fort St. John, northeast B.C., near Alberta boundary.	1934	770	Community picnic ground. Fishing.
Mt. Seymour....	North Vancouver, lower mainland, B.C.	1936	9,156	Mountain. Winter sport park with summer hiking, swimming and berry picking. Highway under construction.
King George VI...	Rossland, southeast B.C. near U.S. border.	1937	50	Local playground.
Oliver.....	Oliver, south central, near U. S. border.	1937	21	Community playground.
Brentwood Bay...	Victoria, Vancouver Is-land.	1938	1	Foreshore parks. Picnic and fishing.
Clearwater.....	Hedly, south central B.C.	1938	260	Scenic mountain lake. Fishing. Poor road.
Crescent Beach...	Crescent Beach, lower mainland near U. S. border.	1938	237	Ocean beach. Road access.
Mara Recreation..	Sicamous, central B.C....	1938	15	Roadside beach, picnic ground and swimming.
Mt. Bruce.....	Salt Spring Island, south coast near Victoria.	1938	480	Undeveloped forest park.
Mt. Maxwell.....	Salt Spring Island, south coast near Victoria.	1938	492	Undeveloped forest park with scenic lookout.
Tweedsmuir.....	Bella Coola, Burns Lake..	1938	3,456,000	One of the larger wilderness areas in North America. Scenic boat tours and trail rides. Fishing, hunting.
Elk River.....	Fernie, southeastern B.C.	1939	10	Community playground. Swimming.
Osoyoos.....	Osoyoos, south central B.C. near U.S. border.	1939	7	Community playground.
Peace Arch.....	White Rock, B.C., and Blaine, Wash., Interna-tional Boundary.	1939	16	Landscaped international park featur-ing Peace Arch. Picnic grounds. King George VI Highway.
Testalinda.....	Oliver, south central B.C. near U.S. border.	1939	5	Undeveloped community area.
Wells Grey.....	North of Kamloops, B.C..	1939	1,164,800	Undeveloped lake and mountain park. Fishing and hunting. Access, poor road and trail.
Chasm.....	Clinton, central B.C.....	1940	315	Outstanding geological feature, a great chasm in the Interior Plateau adjacent to the Caribou Highway.
Elk Falls.....	Campbell River, east coast Vancouver Island.	1940	2,558	A series of cascades and falls on Camp-bell River. Stand of giant firs. Ad-jacent to hydro-electric installations.
Little Qualicum Falls.	Qualicum Beach, adjacent to Parksville Alberni Highway.	1940	207	A forest area traversed by a picturesque river containing falls and canyons. Picnic ground, swimming, camping and hiking. Accessible by highway.
Manitou.....	Naramata — Okanagan Lake, south central B.C.	1940	3	Community playgrounds and swim-ming.

### 3.—Locations, Date Established, Areas and Characteristics of the Provincial Parks— concluded

Park	Location	Date Estab- lished	Area	Characteristics
<b>British Columbia</b> —conc.			acres	
Premier Lake.....	Cranbrook, Canal Flats, southeastern B.C.	1940	165	Community playground. Fishing, picnicking, swimming. Poor road access.
Silver Star.....	Vernon, Okanagan, south central B.C.	1940	21,888	Interior mountain park. Alpine scenery, berry picking, skiing. Poor road access.
Stamp Falls.....	Alberni, Vancouver Island.	1940	424	Forest park with river falls, fish ladder and swimming pool. Picnic grounds, camping. Road access.
Hamber.....	Big Bend Highway. Park adjoins Jasper and Banff.	1941	2,431,960	Undeveloped forest and mountain area bordering easterly portion of Big Bend Highway.
Manning.....	Hope-Princeton Highway south central B.C., near U.S. border.	1941	171,500	A mountain park featuring Alpine flower meadows and scenic fishing lakes. Wildlife sanctuary. Acces- sible by highway.
Wendle.....	Wells, east central B.C...	1941	640	Community swimming and picnic area. Road access.
Darke Lake.....	Summerland, S. Okan- agan.	1943	5,472	Typical scenic group of interior mount- ain lakes. Fishing, hunting and boating.
Kitsumgallum....	On Kitsumgallum Lake, vicinity of Terrace.	1943	25	Undeveloped area used as community beach and picnic grounds.
Cathedral Grove..	Cameron Lake, Vancouver Island.	1944	337	World-famous stand of virgin west- coast forest, accessible on the Alberni-Parksville Highway.
Kitty Coleman Beach.	Merville, east coast Van- couver Island.	1944	21	Community picnic and fishing centre. Road access.
Memory Island...	Shawnigan Lakes, South Vancouver Island.	1945	2	Small undeveloped island in a popular recreational area. Swimming, fish- ing; adjacent to highway.
Roberts Creek....	Roberts Creek, south coastal, northwest of Vancouver.	1947	2	Community picnic and swimming area. Road access.
Cultus Lake.....	Chilliwack, Fraser Valley, lower mainland.	1948	950	Summer park. Swimming, picnicking, fishing. Road access.
McDonald.....	Sidney, near Victoria, S. Vancouver Island.	1948	5	Partly developed trail, picnic ground.
Petroglyph.....	Nanaimo, east coast, Van- couver Island.	1948	4	Site of ancient rock carvings, of un- known origin. Accessible by road.
Tow Hill.....	Queen Charlotte Island...	1948	480	Community picnic ground in largely undeveloped park.
Ivy Green.....	Ladysmith, Vancouver Island.	1949	50	Community park and picnic ground.

## 4.—Total Areas, National and Provincial Parks, by Provinces and Territories

Province or Territory	National	Provincial	Total
	sq. miles	sq. miles	sq. miles
Newfoundland.....	—	42·00	42·00
Prince Edward Island.....	7·00	—	7·00
Nova Scotia.....	390·61	—	390·61
New Brunswick.....	79·63	—	79·63
Quebec.....	0·33 <sup>1</sup>	10,652·73	10,653·06 <sup>1</sup>
Ontario.....	11·73	5,210·17	5,221·90
Manitoba.....	1,148·08	—	1,148·08
Saskatchewan.....	1,496·00	1,685·13 <sup>2</sup>	3,181·13 <sup>2</sup>
Alberta.....	20,718·00	13·49	20,731·49
British Columbia.....	1,671·00	14,071·39	15,742·39
Yukon.....	—	—	—
Northwest Territories.....	3,625·00	—	3,625·00
<b>Canada.....</b>	<b>29,147·38</b>	<b>31,674·91</b>	<b>60,822·29</b>

<sup>1</sup> Not including area of Gatineau Park, 25 square miles in extent (see p. 18).  
 Nipawin and Lac La Ronge unsurveyed lands, 1,392 square miles in extent.

<sup>2</sup> Includes

## Section 4.—Game, Game Laws and Fishery Regulations

*Game and Game Fish.*—The resources of Canada from the standpoints of the sportsman and tourist are both unique and varied. In the wooded and unsettled areas of Eastern Canada there are moose, deer, bear, and smaller game, while in the western part there are also caribou, wapiti, mountain sheep, mountain goat and grizzly bear. Mountain lion or cougar are found in British Columbia and in the mountains of Alberta, while in the northwest and far north there still exist herds of buffalo and musk-ox that are given absolute protection by the Federal Government.

Ruffed grouse or “partridge” are found in the wooded areas of Canada from coast to coast. Sharptail grouse or “prairie chicken” inhabit the open prairies and the partly timbered areas of the three mid-western provinces. The Franklin grouse is native to the mountains of the west; ptarmigan, or Arctic grouse, live in the treeless northern plains and are found also in the high mountains of Alberta and British Columbia.

Canada, particularly Western Canada, is the breeding-ground of most of the waterfowl in North America. These birds spend the winter chiefly in the southern United States and Mexico, and migrate to Canada in the spring. Whistling swans

nest in the Arctic, and trumpeter swans in Alberta; both species are rigorously protected at all times. Countless numbers of ducks breed in the sloughs and marshes of the Prairie Provinces, while geese of many species nest as far north as the Arctic Ocean.

Hunting regulations governing waterfowl in both Canada and the United States are based on the Migratory Birds Treaty of 1916.

Broadly speaking, game fish are to be found in various parts of Canada as follows: on the Atlantic side, salmon and trout; in the middle of the country, bass, maskinonge, wall-eyed and northern pike; and in the west, trout and salmon. In the waters off the Atlantic Coast are swordfish and tuna.

*Game Laws and Fishery Regulations.*—Game laws, except for the National Parks and the Migratory Birds Convention Act, are under the administration of the various provinces and territories. A Federal law, the Game Export Act, passed in 1941, prohibits the export of game from any province or territory without a permit from the province or territory concerned. It has been proclaimed for all provinces and territories except Prince Edward Island. In both National and Provincial Parks, while angling is permitted, the shooting or molesting of game is forbidden and the wildlife resources are strictly protected. Bird sanctuaries have been established by the Federal Government under the Migratory Birds Convention Act and by many of the provinces as well.

The Migratory Birds Treaty and the legislation giving it effect throughout Canada are administered by the Dominion Wildlife Service of the Department of Mines and Resources in conjunction with the Royal Canadian Mounted Police and in co-operation with the provincial game authorities. The Treaty, which has been effective since 1916, has as its object the protection of the valuable migratory bird life of Canada and the United States. Information concerning the Treaty and copies of the regulations enacted for its enforcement, may be obtained from the Chief, Dominion Wildlife Service, Department of Mines and Resources, Ottawa. Details as to close seasons, licences, etc., vary from year to year and are often subject to changes before the opening of the season. Information about the Federal game laws may be obtained by writing to the Dominion Wildlife Service, Department of Mines and Resources, Ottawa.

Fisheries in the National Parks of Canada are under the administration of the National Parks Service of the Federal Department of Mines and Resources, Ottawa. The fisheries of Alberta and Saskatchewan, the non-tidal fisheries of British Columbia, Manitoba, Ontario, New Brunswick, Prince Edward Island and Newfoundland, and all the fisheries of Quebec are under the administration of the respective provinces. Fisheries regulations may be obtained from the Department of Fisheries, Ottawa.



or, in the case of National Parks, from the National Parks Service, Ottawa. Data respecting provincial game laws and fishery regulations are available from:—

**Nfld.—GAME OR FISHERIES**

Newfoundland Tourist Development  
Office,  
St. John's, Newfoundland.

**P.E.I.—GAME**

Prince Edward Island Travel Bureau,  
101 Queen Street,  
Charlottetown, P.E.I.

**FISHERIES**

Regional Supervisor of Fisheries,  
Jordan Building,  
Charlottetown, P.E.I.

**N.S.—GAME**

Department of Lands and Forests,  
Halifax, N.S.

**FISHERIES**

Regional Supervisor of Fisheries,  
Department of Fisheries,  
144 Hollis Street,  
Halifax, N.S.

**N.B.—GAME**

Bureau of Information and Tourist Travel,  
Fredericton, N.B.

**FISHERIES**

Regional Supervisor of Fisheries,  
Fredericton, N.B.

Chief Supervisor of Fisheries,  
Moncton, N.B.

**Que.—GAME OR FISHERIES**

Department of Fish and Game,  
Quebec, Que.

**Ont.—GAME OR FISHERIES**

Division of Fish and Wild Life,  
Department of Lands and Forests,  
Parliament Buildings,  
Toronto 5, Ont.

**Man.—GAME OR FISHERIES**

Director of Game and Fisheries,  
Department of Mines and Natural  
Resources,  
Parliament Buildings,  
Winnipeg, Man.

**Sask.—GAME**

Game Commissioner,  
Department of Natural Resources and  
Industrial Development,  
Regina, Sask.

**FISHERIES**

Fisheries Branch,  
Department of Natural Resources,  
Prince Albert, Sask.

**Alta.—GAME OR FISHERIES**

Fish and Game Commissioner,  
Department of Lands and Mines,  
Edmonton, Alta.

**B.C.—GAME OR FISHERIES**

The Game Commission,  
567 Burrard Street,  
Vancouver, B.C.

**Yukon.—GAME OR FISHERIES**

Commissioner of Yukon Territory,  
Dawson, Y.T.

Officer Commanding,  
The Royal Canadian Mounted Police,  
Whitehorse, Y.T.

The Territorial Agent,  
Whitehorse, Y.T.

**N.W.T.—GAME OR FISHERIES**

Deputy Commissioner,  
Northwest Territories,  
Lands and Development Services Branch,  
Department of Mines and Resources,  
Ottawa, Ont.

District Administrator,  
Fort Smith, N.W.T.

**FISHERIES**

Chief Supervisor of Fisheries,  
509 Portage Avenue,  
Winnipeg, Man.

## PART VI.—CLIMATE, METEOROLOGY, ETC.

### Section 1.—Climate

The list at the front of this volume, under the heading "Climate and Meteorology", gives the articles that have appeared in previous editions of the Year Book. Many of the statistical compilations that accompany those articles were built up on the basis of long-term averages and are still of value but, in recent years, the science of climate and weather has advanced considerably and a great many more stations for the collection of data have been established across Canada. This is especially true of the period since 1939 and the rapid growth of aviation.

At pp. 41-62 of the 1948-49 edition of the Year Book, there appears a revised treatment of the Climate of Canada Part I. In the headnote to that material it is pointed out that the detailed tabulations for climatic factors covering a wide range of stations across Canada would be published as Part II later. This material is

presented below. The two Parts have been combined in a reprint that may be obtained by applying to the Meteorological Division, Department of Transport, Toronto, Ont.

**Explanation of the Tables.**—The thirty-five meteorological stations for which data are listed are mostly well-known or populous places with climates fairly representative of a considerable area. Under Temperature "Average Daily" refers to figures derived during the period of observation (in most cases 50 years) by adding together the mean temperatures for all the days of the period and striking the average. The average high and low daily temperatures are obtained in the same way. The average high and low extremes are struck from the extreme high and low temperatures for 50 Januaries. Under "Record High and Low" are shown the temperature that is above and the temperature that is below all others for the 50-year period.

Under Precipitation "Rain, Inches" shows the total depth of water accumulated on a hypothetical horizontal impervious surface without evaporation, one inch of rainfall representing approximately 113 short tons of water per acre. Similarly, the depth of snow given is that which falls on a horizontal surface, without settling, melting or sublimation but with its density as determined immediately after each snowfall.

Since it has been shown that the depth of water obtained from melting newly-fallen snow is roughly one-tenth of the depth of the snow, the total precipitation for any month is obtained by adding together the total rainfall and one-tenth of the depth of newly-fallen snow. A day with rain is, for the purpose of these tables, one on which 1/100 of an inch or more has fallen and a day with snow is one with at least 1/10 of an inch of newly-fallen snow.

Under Heating Factor the "Day Degrees" represent, for a given month, the sum of the deficits of outside temperature which have to be made up by fuel consumption to raise the inside temperature of a building to a constant 65°F. level. The totals measure, approximately, the difficulty of maintaining a given temperature in various parts of Canada.

The average number of days in each month when "Thunder" has been heard at least once in twenty-four hours is listed.

The number of Hours of Bright Sunshine is determined by a Campbell-Stokes recorder—a spherical lens exposed to the sky, which focuses the sun's rays to a burning-point. Sometimes a veil of cloud weakens the trace on the recording paper but the length of these traces is recorded as bright sunshine. On the other hand, the recorder does not function well until the whole disc of the sun is visible above the horizon: the day's recorded total, therefore, tends to be diminished by a slight amount of sunshine at sunrise and sunset.

Whenever the temperature four feet above the ground falls to 32°F. or lower, the day is counted as a day with "Frost". The average date of the last spring frost and of the first frost in the autumn, appended in footnotes, approximates the average period *continuously* free from frost.

"Humidity" is given for a height of approximately four feet above the ground. The weight of the water-vapour mixed with one thousand parts by weight of absolutely dry air is given under the heading "Water-vapour" and is an average for each month determined from several years of daily observations. For every temperature there is a maximum amount of water-vapour that can exist in a given volume of air. When the temperature falls to where the water-vapour becomes visible, the temperature is said to have reached the *dew-point*, the air is saturated and the relative humidity is 100 p.c. The relative humidity is ordinarily least in the early afternoon and greatest about dawn.

## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations

NOTE.—For full explanation of terms used and observing methods see p. 34.

GANDER, N°F°LD.—48°57'N. 54°34'W. 482 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION				
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)
				Average		Record						
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days	
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	in.
Jan.....	19.2	26.1	12.3	42	—5	50	—13	0.63	3	21.8	16	2.81
Feb.....	19.0	26.5	11.6	43	—6	53	—15	0.82	6	25.1	16	3.33
Mar.....	23.9	31.2	16.4	44	1	53	—14	0.76	5	18.4	15	2.60
Apr.....	32.6	39.3	25.8	56	12	71	4	1.06	7	12.6	11	2.32
May.....	44.1	53.1	35.1	71	24	78	22	1.96	13	4.5	4	2.41
June.....	52.1	61.7	42.6	81	32	89	28	2.83	14	1.5	1	2.98
July.....	62.3	72.3	52.3	86	40	91	36	3.65	12	—	—	3.65
Aug.....	61.1	69.9	52.4	84	41	89	30	3.45	16	—	—	3.45
Sept.....	54.8	62.8	46.8	78	34	83	31	3.07	16	0.1	1	3.08
Oct.....	43.9	51.2	36.7	68	27	76	23	3.55	17	3.2	3	3.87
Nov.....	33.7	39.3	28.1	57	13	67	6	3.16	14	9.3	9	4.09
Dec.....	24.6	30.3	18.8	46	3	50	—5	1.20	6	24.5	14	3.65
Year....	39.3	47.0	31.6	88	—10	91	—15	26.14	129	121.0	89	38.24
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	Frost <sup>2</sup>	HUMIDITY		
		Most Prevalent		Second Prevalent		Average Speed				Water- Vapour (parts per 1,000)	Relative	
		Day- Degrees Below 65°F.	Dirrec- tion	Perce- centage	Dirrec- tion	Perce- centage	Miles per Hour	Days with	Hours of		Days with	24- Hour
		No.						No.	No.	No.		p.c.
Jan.....	1,420	W.	27	SW.	20	16.9	—	76	31	1.9	88	82
Feb.....	1,288	W.	26	SW.	16	17.7	—	78	28	1.9	88	81
Mar.....	1,274	W.	23	NW.	19	17.2	—	113	31	2.3	84	74
Apr.....	972	W.	20	NW.	17	15.5	—	124	26	3.1	80	68
May.....	648	SW.	17	W.	16	13.9	—	140	12	4.4	79	66
June.....	415	SW.	18	N.	16	14.1	—	149	1	6.0	79	64
July.....	164	SW.	34	W.	20	12.7	2	194	—	8.7	76	59
Aug.....	145	SW.	31	W.	17	12.2	3	175	—	8.9	80	63
Sept.....	306	SW.	27	W.	18	13.9	—	129	—	7.1	82	68
Oct.....	654	SW.	26	W.	21	15.1	—	108	7	4.9	84	72
Nov.....	939	W.	26	SW.	20	15.5	—	61	22	3.6	86	80
Dec.....	1,252	W.	29	SW.	21	16.9	—	58	30	2.4	87	82
Year....	9,477	SW.	22	W.	21	15.1	5	1,405	188	4.6	83	72

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost May 29; of first autumn frost Oct. 2.

**1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.**

NOTE.—For full explanation of terms used and observing methods see p. 34.

GOOSE BAY, N'F'LD.—53°20'N. 60°24'W. 144 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION							
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)			
				Average		Record									
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days				
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.		in.		
Jan.....	0.7	8.5	-7.2	36	-27	42	-32	0.07	2	17.2	14	1.79			
Feb.....	5.7	15.0	-3.6	36	-24	46	-35	0.13	2	23.7	15	2.50			
Mar.....	15.1	24.9	5.4	44	-17	51	-32	0.04	1	18.6	14	1.90			
Apr.....	27.0	36.3	17.7	56	-2	62	-12	0.36	2	12.6	9	1.62			
May.....	39.8	48.4	31.2	68	16	74	10	1.41	10	5.3	4	1.94			
June.....	50.5	59.9	41.0	82	31	87	30	2.50	15	—	—	2.50			
July.....	62.3	72.5	52.2	91	41	100	38	3.24	14	—	—	3.24			
Aug.....	58.6	67.4	49.7	84	37	91	32	2.68	17	—	—	2.68			
Sept.....	51.1	59.7	42.5	77	28	84	20	2.10	13	1.0	1	2.20			
Oct.....	38.1	44.6	31.6	67	18	73	11	1.51	8	10.5	3	2.56			
Nov.....	24.6	31.3	17.8	50	-2	58	-9	0.32	4	18.8	9	2.20			
Dec.....	7.2	14.5	0.0	35	-20	47	-25	0.03	1	24.1	12	2.44			
Year....	31.7	40.2	23.2	91	-30	100	-35	14.39	89	131.8	80	27.57			
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	FROST <sup>1</sup>	HUMIDITY					
		Most Prevalent		Second Prevalent		Average Speed				Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative	
														24- Hour	Noon
		Day- Degrees Below 65°F.	Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour	No.	No.	No.	p.c.	p.c.			
Jan.....	1,993	W.	32	SW.	24	10.7	—	89	31	0.7	84	82			
Feb.....	1,660	W.	27	SW.	17	9.3	—	100	28	0.9	83	76			
Mar.....	1,547	W.	35	NW.	16	10.2	—	168	31	1.3	74	66			
Apr.....	1,140	NE.	24	W.	19	9.7	—	154	27	2.3	70	58			
May.....	781	NE.	21	W.	17	9.2	—	159	17	3.6	68	57			
June.....	406	NE.	28	N.	16	8.8	—	187	3	5.1	67	53			
July.....	155	SW.	23	W.	16	8.9	3	205	—	7.4	63	49			
Aug.....	211	SW.	21	W.	17	8.7	1	185	—	7.3	69	54			
Sept.....	417	W.	25	SW.	24	9.6	—	159	3	5.6	70	54			
Oct.....	834	W.	24	SW.	21	10.7	—	87	18	3.4	72	63			
Nov.....	1,212	W.	30	SW.	21	10.3	—	74	29	2.0	80	72			
Dec.....	1,792	W.	39	SW.	28	10.9	—	55	31	0.9	87	83			
Year....	12,148	W.	24	SW.	19	9.8	4	1,622	218	3.4	74	64			

<sup>1</sup> Less than 5 days in 10 years.  
Sept. 15.<sup>2</sup> Average date of last spring frost June 12; of first autumn frost



## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

ST. JOHN'S, N'F'LD.—47°34'N. 52°42'W. 296 FEET ABOVE SEA

	TEMPERATURE								PRECIPITATION				
	Average Daily			Extremes				Rain		Snow		Total Pre- cipitation (water)	
				Average		Record							
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days		
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.		in.
Jan.....	23.5	29.4	17.6	45	5	59	-19	2.82	8	24.9	17	5.31	
Feb.....	21.8	27.8	15.7	45	2	56	-21	2.26	6	26.4	17	4.90	
Mar.....	27.3	33.1	21.5	48	6	67	-14	2.96	9	16.5	14	4.61	
Apr.....	35.2	40.9	29.5	58	19	72	-1	3.39	11	7.7	8	4.16	
May.....	42.6	50.0	35.2	68	26	81	20	3.44	14	1.7	2	3.61	
June.....	52.5	61.0	43.9	77	34	87	27	3.47	14	--	1	3.47	
July.....	59.6	68.0	51.1	81	42	90	33	3.54	10	—	—	3.54	
Aug.....	60.5	68.6	53.3	84	44	93	32	3.73	14	—	—	3.73	
Sept.....	54.6	61.7	47.4	74	37	84	29	3.82	15	—	—	3.82	
Oct.....	46.6	53.1	40.1	68	29	87	22	5.23	18	0.4	1	5.27	
Nov.....	37.2	42.4	32.0	59	18	68	6	5.44	16	4.3	8	5.87	
Dec.....	29.3	34.2	24.3	51	11	60	-4	3.57	12	19.2	15	5.49	
Year....	40.9	47.5	34.3	84	-6	93	-21	43.67	147	101.1	82	53.78	
	HEAT- ING FACTOR	WIND						THUN- DER	BRIGHT SUN- SHINE <sup>2</sup>	FROST <sup>3</sup>	HUMIDITY		
	Day- Degrees Below 65°F.	Most Prevalent		Second Prevalent		Average Speed	Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative		
		Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour					24- Hour	Noon	
		No.						No.	No.		No.	p.c.	
Jan.....	1,286	NW.	25	SW.	23	12.3	—	47	30	2.4	90	87	
Feb.....	1,210	NW.	34	SW.	21	13.1	—	76	28	2.4	92	91	
Mar.....	1,169	SW.	26	NW.	17	11.4	1	104	27	2.6	87	81	
Apr.....	894	SW.	23	NW.	20	11.1	1	148	27	3.4	86	79	
May.....	694	SW.	26	NW.	13	9.6	1	151	10	4.6	82	70	
June.....	425	SW.	25	W.	13	9.3	1	191	1	6.0	82	71	
July.....	209	SW.	42	W.	20	9.1	1	210	—	8.6	83	69	
Aug.....	166	SW.	40	W.	17	9.8	1	160	—	9.6	85	73	
Sept.....	312	SW.	34	S.	16	9.8	1	136	—	8.3	86	76	
Oct.....	570	SW.	31	NW.	19	10.9	1	116	4	5.7	85	76	
Nov.....	834	SW.	26	NW.	23	11.5	—	42	15	4.1	88	83	
Dec.....	1,107	NW.	26	SW.	23	12.4	—	55	26	2.7	88	85	
Year....	8,876	SW.	28	NW.	18	10.9	2	1,436	168	5.0	86	78	

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Sunshine data for Torbay, N'fld.<sup>3</sup> Average date of last

spring frost June 2; of first autumn frost Oct. 10.

## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

CHARLOTTETOWN, P.E.I.—46°14'N. 63°07'W. 186 FEET ABOVE SEA

	TEMPERATURE								PRECIPITATION						
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)			
				Average		Record									
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days				
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.		in.		
Jan.....	17.8	26.0	9.6	44	—11	52	—27	1.05	4	27.1	12	3.76			
Feb.....	17.2	25.5	8.9	42	—10	53	—23	0.47	3	25.4	12	3.01			
Mar.....	26.2	33.2	19.2	46	1	60	—17	1.12	7	20.3	9	3.15			
Apr.....	36.4	43.2	29.5	60	18	80	2	2.05	9	7.3	5	2.78			
May.....	47.7	56.0	39.4	72	29	83	22	2.58	14	0.8	1	2.66			
June.....	57.9	66.2	49.6	79	39	87	32	2.58	14	—	—	2.58			
July.....	65.6	73.3	57.8	83	48	91	37	2.98	10	—	—	2.98			
Aug.....	65.1	72.5	57.7	82	48	98	40	3.35	11	—	—	3.35			
Sept.....	57.6	64.6	50.6	76	39	88	33	3.40	13	—	—	3.40			
Oct.....	47.6	53.9	41.2	68	30	82	23	4.04	14	0.3	1	4.07			
Nov.....	36.3	42.0	30.7	57	17	66	1	3.05	13	7.0	3	3.75			
Dec.....	24.6	31.0	18.2	47	2	59	—18	1.50	7	24.8	10	3.98			
Year....	41.7	49.0	34.4	85	—13	98	—27	28.17	119	113.0	52	39.47			
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	FROST <sup>2</sup>	HUMIDITY					
		Most Prevalent		Second Prevalent		Average Speed				Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative	
														24- Hour	Noon
		Day- Degrees Below 65°F.	Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour	No.	No.	No.		p.c.	p.c.		
		No.						No.	No.	No.					
Jan.....	1,463	NW.	24	SW.	23	11.4	—	92	30	1.6	83	74			
Feb.....	1,380	NW.	25	SW.	18	10.8	—	114	28	1.7	83	71			
Mar.....	1,203	NW.	21	SW.	21	10.8	1	136	27	2.3	74	63			
Apr.....	858	SW.	23	NW.	19	10.8	1	156	22	3.4	76	61			
May.....	536	SW.	25	SE.	16	9.6	1	214	3	5.4	76	62			
June.....	264	SW.	31	SE.	14	8.9	2	223	—	7.7	79	65			
July.....	52	SW.	40	S.	17	8.5	2	239	—	10.4	80	62			
Aug.....	58	SW.	35	S.	13	8.6	2	233	—	10.3	79	63			
Sept.....	222	SW.	31	NW.	17	9.4	1	176	—	8.3	79	65			
Oct.....	539	SW.	29	NW.	18	10.8	1	135	4	5.7	81	67			
Nov.....	858	SW.	28	NW.	19	10.9	—	79	16	4.0	80	72			
Dec.....	1,246	SW.	24	W.	22	11.6	—	60	29	2.0	78	72			
Year....	8,679	SW.	27	NW.	17	10.2	8	1,857	159	5.2	79	66			

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost May 13; of first autumn frost Oct. 22.

## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p 34.

HALIFAX, N.S.—44°39'N. 63°34'W. 83 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION				
	Average Daily			Extremes				Rain		Snow		Total Pre- cipitation (water)
				Average		Record						
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days	
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	in.
Jan.....	23.6	31.9	15.2	48	—5	57	—17	3.51	7	18.9	8	5.40
Feb.....	23.2	31.3	15.0	46	—3	52	—21	2.47	6	18.8	9	4.35
Mar.....	30.4	37.8	23.0	52	6	70	—10	3.66	10	11.9	7	4.85
Apr.....	39.4	47.4	31.3	65	21	83	7	3.97	10	5.7	4	4.54
May.....	49.2	58.5	40.0	76	30	90	22	4.13	14	0.1	1	4.14
June.....	57.9	67.6	48.2	83	38	94	32	4.04	14	—	—	4.04
July.....	64.7	74.1	55.3	86	47	99	39	3.79	11	—	—	3.79
Aug.....	64.7	73.6	55.8	85	46	94	39	4.38	10	—	—	4.38
Sept.....	58.6	67.3	49.8	80	37	94	29	4.13	12	—	—	4.13
Oct.....	49.0	57.0	41.0	71	28	88	21	5.40	12	0.2	1	5.42
Nov.....	38.8	45.8	31.9	60	18	69	4	5.04	14	2.7	2	5.31
Dec.....	28.2	35.3	21.0	52	2	62	—14	4.14	10	12.5	7	5.39
Year....	44.0	52.3	35.6	89	—8	99	—21	48.66	130	70.8	38	55.74
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	Frost <sup>2</sup>	HUMIDITY		
	Day- Degrees Below 65°F.	Most Prevalent		Second Prevalent		Average Speed	Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative	
		Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour					24- Hour	Noon
		No.									p.c.	p.c.
Jan.....	1,280	NW.	24	W.	21	13.6	1	92	29	2.1	82	73
Feb.....	1,168	NW.	23	N.	17	12.6	1	111	28	2.3	82	73
Mar.....	1,066	NW.	20	N.	15	12.7	1	153	26	2.9	74	61
Apr.....	768	SW.	19	NW.	18	12.6	1	165	16	3.7	77	68
May.....	493	SW.	23	NW.	14	10.3	1	189	1	5.4	76	65
June.....	260	SW.	26	S.	15	9.9	1	199	—	7.4	79	67
July.....	56	SW.	31	S.	17	8.9	1	239	—	10.3	82	68
Aug.....	51	SW.	26	W.	17	8.5	1	212	—	10.6	82	69
Sept.....	189	SW.	24	NW.	17	9.5	1	161	—	8.9	81	67
Oct.....	493	SW.	20	NW.	20	11.3	1	137	2	6.1	79	65
Nov.....	783	SW.	23	NW.	22	11.8	1	88	12	4.3	83	74
Dec.....	1,141	NW.	29	W.	16	12.6	1	89	26	2.4	80	73
Year....	7,748	SW.	21	NW.	19	11.2	6	1,835	139	5.5	80	69

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost May 11; of first autumn frost Oct. 14.

## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

SYDNEY, N.S.—46°09'N. 60°12'W. 48 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION							
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)			
				Average		Record									
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days				
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.		in.		
Jan.....	22.1	30.4	13.9	48	-6	58	-25	2.78	6	23.8	12		5.16		
Feb.....	19.8	28.9	10.6	45	-10	59	-25	1.93	5	24.9	11	4.42			
Mar.....	27.4	35.4	19.3	50	0	65	-24	2.71	8	17.4	10	4.45			
Apr.....	36.3	44.2	28.4	62	16	81	0	3.15	10	8.8	6	4.03			
May.....	46.2	55.9	36.4	74	27	89	20	3.39	12	0.5	1	3.44			
June.....	55.8	66.1	45.4	81	34	94	27	2.84	13	—	—	2.84			
July.....	63.6	73.4	53.8	85	42	92	33	3.37	10	—	—	3.37			
Aug.....	63.8	72.9	54.8	84	43	98	36	3.75	10	—	—	3.75			
Sept.....	57.1	65.9	48.3	79	35	88	28	3.46	14	—	—	3.46			
Oct.....	48.0	55.7	40.3	70	28	81	22	4.08	15	0.2	1	4.70			
Nov.....	38.3	44.7	31.9	60	20	72	6	4.72	15	4.5	3	5.17			
Dec.....	28.7	34.9	22.5	51	8	58	-10	3.67	9	17.8	11	5.45			
Year....	42.3	50.7	33.8	87	-11	98	-25	10.45	127	97.9	53	50.24			
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	FROST <sup>2</sup>	HUMIDITY					
		Most Prevalent		Second Prevalent		Average Speed				Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative	
														24- Hour	Noon
			Day- Degrees Below 65°F.	Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour	No.	No.	No.		p.c.	p.c.	
	No.							No.	No.	No.					
Jan.....	1,330	NW.	25	W.	25	8.9	1	..	30	2.0	85	78			
Feb.....	1,307	NW.	23	W.	22	9.8	1	..	28	2.0	83	74			
Mar.....	1,166	SW.	19	NW.	18	10.1	1	..	28	2.6	79	70			
Apr.....	861	SW.	23	NE.	20	9.4	1	..	24	3.4	79	67			
May.....	583	SW.	26	NE.	15	8.3	1	..	4	5.1	80	67			
June.....	330	SW.	36	NE.	12	8.1	1	..	—	7.1	81	69			
July.....	50	SW.	46	W.	11	8.1	2	..	—	10.3	81	66			
Aug.....	75	SW.	37	W.	15	7.4	1	..	—	10.3	82	67			
Sept.....	237	SW.	30	W.	18	8.3	1	..	—	8.9	85	73			
Oct.....	527	SW.	28	W.	17	9.7	1	..	4	5.9	83	71			
Nov.....	801	SW.	25	W.	21	10.7	1	..	13	4.3	86	78			
Dec.....	1,125	NW.	26	W.	23	10.8	1	..	27	2.6	83	78			
Year....	8,392	SW.	27	W.	17	9.1	6	..	158	5.4	82	72			

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost May 29; of first autumn frost Oct. 13.



## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

YARMOUTH, N.S.—43°50'N. 66°08'W. 101 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION							
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)			
				Average		Record									
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days				
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	in.			
Jan.....	26.0	34.1	18.0	49	3	55	—6	2.43	7	20.6	12	4.4			
Feb.....	25.8	32.5	19.0	45	3	54	—12	2.06	6	21.8	12	4.24			
Mar.....	32.0	38.1	25.9	51	11	63	—2	2.86	8	13.1	8	4.17			
Apr.....	39.8	46.4	33.2	60	23	73	15	2.91	11	5.3	3	3.44			
May.....	48.0	55.5	40.6	67	31	75	25	3.50	10	0.1	<sup>1</sup>	3.51			
June.....	55.5	63.2	47.8	74	39	80	31	2.99	12	—	—	2.99			
July.....	60.8	68.3	53.3	78	46	86	41	3.38	10	—	—	3.38			
Aug.....	61.0	68.4	53.5	77	44	83	39	3.47	8	—	—	3.47			
Sept.....	56.4	63.7	49.0	74	36	83	31	3.59	9	—	—	3.59			
Oct.....	48.9	55.8	41.9	67	28	76	25	4.13	11	0.2	<sup>1</sup>	4.15			
Nov.....	40.3	46.6	34.0	59	20	66	10	3.80	14	3.2	3	4.12			
Dec.....	31.0	37.3	24.6	52	8	59	—11	3.31	10	15.7	10	4.88			
Year....	43.8	50.8	36.7	78	0	86	—12	38.43	116	80.0	48	46.43			
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	Frost <sup>2</sup>	HUMIDITY					
		Most Prevalent		Second Prevalent		Average Speed  Miles per Hour				Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative	
		Direc- tion	Per- cent- age	Direc- tion	Per- cent- age									24- Hour	Noon
Jan.....	1,209	NW.	29	SW.	13	14.4	—	..	29	2.3	84	79			
Feb.....	1,133	NW.	31	SE.	13	13.6	<sup>1</sup>	..	28	2.4	82	77			
Mar.....	1,023	NW.	20	W.	19	12.6	<sup>1</sup>	..	24	3.0	80	74			
Apr.....	756	NW.	26	W.	14	13.5	1	..	13	4.1	82	73			
May.....	527	SW.	24	NW.	18	10.5	1	..	<sup>1</sup>	6.0	83	71			
June.....	310	SW.	28	NW.	16	9.1	2	..	—	7.7	84	77			
July.....	85	SW.	30	NW.	16	7.4	2	..	—	10.0	87	76			
Aug.....	80	SW.	25	NW.	17	7.6	2	..	—	9.7	86	75			
Sept.....	258	SW.	19	NW.	18	9.1	1	..	—	8.7	87	77			
Oct.....	499	NW.	23	SW.	17	11.6	1	..	2	6.1	84	75			
Nov.....	741	NW.	24	SW.	16	12.6	<sup>1</sup>	..	12	4.6	85	80			
Dec.....	1,054	NW.	34	NE.	13	14.1	<sup>1</sup>	..	24	2.9	83	79			
Year....	7,675	NW.	23	SW.	18	11.3	10	..	132	5.6	84	76			

<sup>1</sup> Less than 5 days in 10 years.    <sup>2</sup> Average date of last spring frost May 7; of first autumn frost Oct. 13.

## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

CHATHAM, N.B.—47°02'N. 65°27'W. 98 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION					
	Average Daily			Extremes				Rain		Snow		Total Pre- cipitation (water)	
				Average		Record							
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days		
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.		in.
Jan.....	12.2	22.8	1.7	43	-23	52	-43	0.94	2	24.4	10		3.38
Feb.....	13.5	24.6	2.4	43	-22	55	-39	0.55	2	21.2	11	2.67	
Mar.....	25.2	35.3	15.2	50	-12	67	-25	1.47	5	18.1	10	3.28	
Apr.....	37.4	46.9	28.0	67	12	85	-4	1.89	8	11.3	5	3.02	
May.....	49.6	60.4	38.9	81	27	92	20	3.18	13	0.3	1	3.21	
June.....	59.8	70.9	48.7	87	36	96	30	3.61	13	--	1	3.61	
July.....	66.6	77.4	55.7	90	45	98	38	3.91	12	—	—	3.91	
Aug.....	64.4	74.9	54.0	88	42	102	33	4.04	13	—	—	4.04	
Sept.....	56.4	66.5	46.3	82	32	92	23	3.05	13	--	1	3.05	
Oct.....	45.6	54.6	36.6	72	23	84	12	3.86	12	1.1	1	3.97	
Nov.....	32.6	39.7	25.4	58	6	70	-12	2.42	10	10.1	5	3.43	
Dec.....	18.6	27.0	10.2	45	-14	58	-30	1.09	4	20.8	9	3.17	
Year....	40.2	50.1	30.3	92	-26	102	-43	30.01	107	107.3	50	40.74	
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	FROST <sup>2</sup>	HUMIDITY			
	Day- Degrees Below 65°F.	Most Prevalent		Second Prevalent		Average Speed	Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative		
		Direction	Per- cent- age	Direction	Per- cent- age	Miles per Hour					24- Hour	Noon	
		No.									p.c.	p.c.	
	Jan.....	1,637	W.	38	NW.	21	7.8	—	..	31	1.4	83	71
Feb.....	1,487	W.	30	NW.	21	7.5	—	..	28	1.4	82	71	
Mar.....	1,234	W.	26	NW.	21	8.4	—	..	28	2.3	74	62	
Apr.....	828	W.	20	NE.	18	8.1	1	..	24	3.3	73	60	
May.....	477	SW.	18	W.	18	7.9	1	..	6	5.0	70	52	
June.....	250	SW.	24	W.	19	7.3	1	..	1	7.4	72	55	
July.....	28	SW.	34	W.	26	6.7	2	..	—	10.6	74	57	
Aug.....	62	SW.	31	W.	27	6.8	1	..	—	9.7	74	50	
Sept.....	258	SW.	28	W.	24	7.1	1	..	1	7.9	79	58	
Oct.....	601	SW.	28	W.	23	8.1	1	..	13	5.3	79	61	
Nov.....	972	SW.	23	W.	23	7.9	—	..	25	3.4	86	76	
Dec.....	1,438	W.	32	NW.	21	7.7	—	..	30	1.6	82	72	
Year....	9,272	W.	26	SW.	22	7.6	6	..	186	4.9	77	62	

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost May 19; of first autumn frost Sept. 29.

## I.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

MONCTON, N.B.—46°07'N. 64°41'W. 248 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION							
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)			
				Average		Record									
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days				
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	in.			
Jan.....	15.7	26.6	4.9	49	—17	63	—32	1.18	2	16.9	12	2.8			
Feb.....	15.3	25.9	4.7	45	—18	59	—33	0.63	3	16.0	13	2.23			
Mar.....	26.6	35.9	17.4	53	—6	66	—25	1.58	5	11.6	11	2.74			
Apr.....	38.4	47.3	29.4	68	15	83	4	1.96	7	5.6	7	2.52			
May.....	49.7	60.7	38.7	79	26	91	20	3.48	13	0.4	1	3.52			
June.....	59.0	70.3	47.6	86	33	94	25	3.13	14	--	1	3.13			
July.....	65.5	76.6	54.4	88	41	95	35	3.43	11	—	—	3.43			
Aug.....	63.2	74.2	52.1	86	38	96	31	3.50	10	—	—	3.50			
Sept.....	55.6	66.5	44.6	81	29	92	24	3.01	14	--	1	3.01			
Oct.....	45.8	56.0	35.5	73	21	83	14	3.69	13	0.3	1	3.72			
Nov.....	33.8	42.0	25.6	62	8	73	—4	2.66	11	5.5	5	3.21			
Dec.....	20.7	29.6	11.8	50	—10	65	—25	1.38	5	16.2	11	3.00			
<b>Year....</b>	<b>40.8</b>	<b>51.0</b>	<b>30.6</b>	<b>89</b>	<b>—21</b>	<b>96</b>	<b>—33</b>	<b>29.63</b>	<b>108</b>	<b>72.5</b>	<b>60</b>	<b>36.88</b>			
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE <sup>2</sup>	Frost <sup>3</sup>	HUMIDITY					
		Most Prevalent		Second Prevalent		Average Speed				Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative	
		Dirrec- tion	Per- cent- age	Dirrec- tion	Per- cent- age	Miles per Hour								24- Hour	Noon
		No.												No.	No.
Jan.....	1,528	W.	39	SW.	17	15.3	—	110	31	1.4	85	78			
Feb.....	1,435	W.	30	SW.	16	14.6	—	125	28	1.7	85	79			
Mar.....	1,190	W.	23	SW.	16	14.2	1	150	28	2.3	76	65			
Apr.....	798	SW.	19	N.	18	14.6	1	173	23	3.4	72	56			
May.....	474	SW.	20	S.	17	13.5	1	208	5	5.7	74	59			
June.....	288	SW.	25	S.	17	12.6	1	220	—	8.0	76	60			
July.....	103	SW.	38	S.	20	11.5	2	234	—	10.0	75	56			
Aug.....	82	SW.	31	W.	17	11.3	1	221	1	9.4	76	56			
Sept.....	282	SW.	29	S.	19	11.9	1	172	3	8.0	80	62			
Oct.....	595	SW.	27	W.	20	13.6	1	146	13	5.4	81	66			
Nov.....	936	W.	22	SW.	19	13.5	—	94	21	3.6	84	75			
Dec.....	1,373	W.	39	SW.	18	14.7	—	94	30	1.9	86	77			
<b>Year....</b>	<b>9,084</b>	<b>SW.</b>	<b>23</b>	<b>W.</b>	<b>22</b>	<b>13.4</b>	<b>5</b>	<b>1,947</b>	<b>182</b>	<b>5.1</b>	<b>79</b>	<b>66</b>			

<sup>1</sup> Less than 5 days in 10 years.      <sup>2</sup> Sunshine data for Fredericton, N.B.  
 spring frost May 29; of first autumn frost Sept. 17.

<sup>3</sup> Average date of last

## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—cont.

NOTE.—For full explanation of terms used and observing methods see p. 34.

SAINT JOHN, N.B.—45°17'N. 66°04'W. 119 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION					Tot Pre cipi tati (wat in.)
	Average Daily			Extremes				Rain		Snow			
				Average		Record							
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days		
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.		
Jan.....	19.3	27.9	10.7	46	-10	55	-21	2.40	6	18.8	9	4	
Feb.....	19.8	27.9	11.7	43	-8	50	-20	1.33	6	17.2	11	3	
Mar.....	28.5	35.7	21.3	48	2	62	-10	2.46	8	11.5	10	3	
Apr.....	38.6	45.9	31.4	61	19	75	6	2.68	10	5.4	5	3	
May.....	48.7	56.7	40.8	70	32	87	26	3.12	14	0.1	1	3	
June.....	56.3	63.9	48.7	78	41	88	35	3.15	16	—	—	3	
July.....	61.0	68.2	53.8	80	48	89	41	3.03	12	—	—	3	
Aug.....	61.4	68.5	54.4	79	48	90	42	3.61	13	—	—	3	
Sept.....	56.0	62.8	49.1	74	38	93	31	3.53	14	—	—	3	
Oct.....	47.0	53.7	40.4	66	27	84	20	3.99	14	0.2	1	4	
Nov.....	36.0	42.4	29.6	56	14	63	-9	3.30	12	5.1	4	3	
Dec.....	24.0	31.4	16.6	49	-3	56	-21	2.55	9	12.8	9	3	
Year....	41.4	48.8	34.0	83	-13	93	-21	35.15	134	71.1	49	42.2	
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	FROST <sup>2</sup>	HUMIDITY			
		Most Prevalent		Second Prevalent		Average Speed				Water- Vapour (parts per 1,000)	Relative		
		Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour	Days with	Hours of	Days with		24- Hour	Noon	
													No.
Jan.....	1,417	NW.	47	W.	15	14.2	1	114	30	1.6	76	7	
Feb.....	1,306	NW.	48	W.	11	13.4	—	123	28	1.6	75	7	
Mar.....	1,132	NW.	38	SE.	12	13.2	1	153	26	2.4	78	7	
Apr.....	792	NW.	28	SE.	15	11.9	1	160	16	3.7	76	6	
May.....	505	SE.	21	NW.	20	9.9	1	207	2	5.4	75	6	
June.....	286	SE.	26	S.	22	8.7	2	200	1	7.8	81	7	
July.....	100	SE.	29	S.	24	7.6	3	206	—	9.7	86	7	
Aug.....	80	SE.	26	S.	20	7.5	2	204	—	9.8	85	7	
Sept.....	270	NW.	26	SE.	18	9.1	1	168	1	7.9	82	7	
Oct.....	558	NW.	33	SW.	18	11.6	1	145	7	5.4	79	7	
Nov.....	870	NW.	35	SW.	16	12.3	1	102	18	3.5	78	7	
Dec.....	1,271	NW.	48	W.	13	13.9	1	99	29	2.0	78	7	
Year....	8,587	NW.	31	SE.	16	11.1	11	1,881	156	5.1	79	72	

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost May 4; of first autumn frost Oct. 16.



## 1—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

CHIBOUGAMAU, QUE.—49°54'N. 74°18'W. 1,234 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION				
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)
				Average		Record						
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days	
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	in.
Jan.....	−1.6	9.6	−12.8	33	−38	43	−47	0.01	<sup>1</sup>	23.4	19	2.3
Feb.....	2.0	14.6	−10.5	34	−39	40	−48	0.01	<sup>1</sup>	19.6	15	1.97
Mar.....	10.4	22.4	−1.6	44	−32	56	−45	0.29	2	24.3	15	2.72
Apr.....	28.0	39.6	16.5	59	−8	73	−22	1.09	5	14.7	8	2.56
May.....	44.2	55.4	32.9	75	18	86	9	2.76	12	0.9	2	2.85
June.....	55.4	65.9	44.8	85	30	88	26	4.35	15	—	—	4.35
July.....	61.4	71.8	50.9	85	38	95	32	4.46	16	—	—	4.46
Aug.....	59.3	68.3	50.3	80	37	94	31	5.11	17	—	—	5.11
Sept.....	49.8	57.6	42.0	76	27	84	23	5.15	18	2.1	1	5.36
Oct.....	37.6	44.2	31.1	64	17	75	8	3.19	14	7.9	7	3.98
Nov.....	22.1	28.3	15.9	49	−9	62	−21	1.03	5	16.2	16	2.65
Dec.....	5.4	14.6	−3.7	35	−32	45	−40	0.20	1	31.6	21	3.36
Year....	31.2	41.0	21.3	86	−43	95	−48	27.65	105	140.7	104	41.72
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	FROST <sup>2</sup>	HUMIDITY		
	Day- Degrees Below 65°F.	Most Prevalent		Second Prevalent		Average Speed	Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative	
		Direction	Per- centage	Direction	Per- centage	Miles per Hour					24- Hour	Noon
		No.									p.c.	p.c.
Jan.....	2,065	NW.	21	W.	17	5.6	—	..	31	0.7	89	88
Feb.....	1,764	NW.	25	W.	12	6.1	—	..	28	0.7	88	82
Mar.....	1,693	NW.	30	SE.	12	6.8	<sup>1</sup>	..	31	1.7	86	79
Apr.....	1,110	NW.	24	SE.	13	6.5	—	..	25	2.6	79	69
May.....	645	NW.	23	SE.	13	5.8	1	..	14	4.6	77	66
June.....	345	NW.	28	SW.	14	6.4	4	..	2	7.0	74	60
July.....	145	NW.	26	SW.	20	6.0	6	..	<sup>1</sup>	8.9	77	63
Aug.....	211	NW.	26	SW.	22	6.6	3	..	<sup>1</sup>	8.9	80	66
Sept.....	456	NW.	27	SW.	18	7.7	2	..	5	6.6	84	71
Oct.....	849	NW.	24	SW.	21	8.1	1	..	19	4.6	85	76
Nov.....	1,287	NW.	21	SW.	18	7.8	<sup>1</sup>	..	28	2.3	90	85
Dec.....	1,848	NW.	23	W.	14	6.4	—	..	31	0.9	89	87
Year....	12,418	NW.	25	SW.	14	6.6	17	..	214	4.1	83	74

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost June 11; of first autumn frost Sept. 17

## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

HARRINGTON HARBOUR, QUE.—50°32'N. 59°30'W. 25 FEET ABOVE SEA

	TEMPERATURE								PRECIPITATION									
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)						
				Average		Record												
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days							
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.		in.					
Jan.....	8.0	16.6	-1.3	34	-20	42	-37	0.49	1	36.2	14		4.1					
Feb.....	8.7	17.8	-0.4	35	-19	42	-32	0.85	2	47.5	15	5.6						
Mar.....	19.7	27.8	11.6	40	-8	46	-23	0.50	2	45.0	14	5.0						
Apr.....	30.2	36.5	23.8	45	9	54	-7	1.06	5	17.9	9	2.8						
May.....	38.0	43.7	32.2	56	23	70	15	3.14	12	5.4	3	3.6						
June.....	46.0	51.7	40.3	62	33	83	24	3.80	14	—	—	3.8						
July.....	53.2	58.7	47.8	68	40	82	32	3.35	13	—	—	3.3						
Aug.....	54.1	59.5	48.7	68	41	80	33	4.00	13	—	—	4.0						
Sept.....	47.8	53.5	42.2	63	33	76	26	4.93	16	—	—	4.9						
Oct.....	38.9	44.4	33.4	53	22	64	12	4.21	15	3.7	2	4.5						
Nov.....	28.1	34.2	22.0	46	4	53	-12	3.67	10	15.4	8	5.2						
Dec.....	16.3	23.9	8.7	39	-12	47	-30	1.24	4	33.3	14	4.5						
Year....	32.4	39.0	25.8	71	-24	83	-37	31.24	107	204.4	79	51.68						
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	Frost <sup>1</sup>	HUMIDITY								
		Most Prevalent		Second Prevalent		Average Speed				Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative				
														24- Hour	Noon			
		Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour								No.	No.	No.	p.c.	p.c.
Jan.....	1,767	W.	26	N.	25	15.1	—	..	31					2	2	2		
Feb.....	1,576	N.	26	W.	19	16.6	—	..	28	2	2	2						
Mar.....	1,404	N.	20	NE.	17	14.9	—	..	30	2	2	2						
Apr.....	1,044	SW.	20	NE.	18	13.6	—	..	27	2	2	2						
May.....	837	SW.	23	NE.	22	12.3	3	..	10	4.3	87	82						
June.....	627	SW.	28	NE.	17	13.2	3	..	3	5.9	87	81						
July.....	402	SW.	45	NE.	12	11.4	3	..	—	7.7	90	85						
Aug.....	372	SW.	37	W.	14	11.9	3	..	—	8.6	89	84						
Sept.....	516	SW.	24	W.	20	13.2	3	..	—	7.0	89	81						
Oct.....	809	W.	22	SW.	21	15.1	—	..	11	2	2	2						
Nov.....	1,107	W.	21	SW.	18	15.0	3	..	24	2	2	2						
Dec.....	1,510	N.	25	W.	21	16.1	—	..	31	2	2	2						
Year....	11,971	SW.	22	W.	17	14.0	...	..	192	...	...	...						

<sup>1</sup> Average date of last spring frost June 5; of first autumn frost Oct. 2.  
unobtainable under winter conditions.<sup>2</sup> Less than 5 days in 10 years.<sup>2</sup> Humidity readings

# 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

MONTREAL, QUE.—45°30'N. 73°35'W. 187 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION				
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)
				Average		Record						
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days	
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	in.
Jan.....	13.4	21.3	5.6	42	-16	54	-27	0.99	4	27.7	13	3.76
Feb.....	15.6	23.3	7.8	41	-12	57	-29	0.69	3	23.3	13	3.02
Mar.....	25.8	32.9	18.7	49	-2	77	-20	1.45	6	20.1	11	3.46
Apr.....	41.2	49.3	33.2	70	19	86	2	2.05	10	5.5	4	2.60
May.....	55.2	64.2	46.3	81	34	94	23	3.13	12	0.1	1	3.14
June.....	65.0	73.7	56.4	86	45	94	34	3.43	13	—	—	3.43
July.....	69.7	78.0	61.4	89	52	97	46	3.74	14	—	—	3.74
Aug.....	67.6	75.7	59.4	87	49	96	43	3.45	11	—	—	3.45
Sept.....	59.2	67.0	51.3	82	38	91	32	3.65	12	--	1	3.65
Oct.....	46.8	53.8	39.8	71	27	83	20	3.33	12	0.9	1	3.42
Nov.....	33.1	39.0	27.2	58	9	70	-18	2.46	10	10.9	5	3.55
Dec.....	19.4	26.0	12.8	45	-10	59	-29	1.20	5	23.8	12	3.58
Year....	42.7	50.4	35.0	90	-18	97	-29	29.57	112	112.3	59	40.80
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	FROST <sup>2</sup>	HUMIDITY		
		Most Prevalent		Second Prevalent		Average Speed				Water- Vapour (parts per 1,000)	Relative	
		Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour	Days with	Hours of	Days with		24- Hour	Noon
											p.c.	p.c.
Jan.....	1,552	SW.	29	W.	20	12.4	—	76	31	1.1	79	73
Feb.....	1,509	SW.	23	W.	20	12.7	—	101	28	1.3	75	69
Mar.....	1,265	W.	21	SW.	21	12.7	1	145	25	2.6	72	62
Apr.....	715	SW.	22	NE.	20	12.4	1	168	12	3.7	68	56
May.....	325	SW.	21	NE.	20	11.3	2	205	1	6.4	67	54
June.....	115	SW.	26	W.	19	10.5	3	222	—	9.1	69	55
July.....	11	SW.	33	W.	17	9.6	5	243	—	10.7	68	52
Aug.....	30	SW.	30	W.	18	9.5	4	220	—	10.3	70	54
Sept.....	180	SW.	29	W.	17	10.3	3	169	—	8.0	74	57
Oct.....	550	SW.	27	NW.	20	11.2	1	124	5	5.1	75	60
Nov.....	960	SW.	35	NW.	18	10.9	1	70	18	3.3	78	70
Dec.....	1,432	SW.	28	NW.	19	11.9	—	60	28	1.4	80	75
Year....	8,644	SW.	27	W.	17	11.3	19	1,803	148	5.2	73	61

<sup>1</sup> Less than 5 days in 10 years.

<sup>2</sup> Average date of last spring frost Apr. 28; of first autumn frost Oct. 17.

## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

QUEBEC, QUE.—46°48'N. 71°13'W. 296 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION				
	Average Daily			Extremes				Rain		Snow		Total Pre- cipitation (water)
				Average		Record						
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days	
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	in.
Jan.....	10.4	18.4	2.3	39	-20	52	-34	0.52	2	29.3	16	3.45
Feb.....	12.1	20.3	3.9	38	-17	49	-32	0.43	1	23.1	14	2.74
Mar.....	22.7	30.6	14.8	45	-7	64	-23	0.94	4	20.8	13	3.02
Apr.....	36.7	44.5	28.9	64	13	80	-1	1.48	8	8.7	7	2.35
May.....	51.2	61.1	41.2	79	29	91	18	3.10	12	0.5	1	3.15
June.....	61.6	71.6	51.7	86	40	94	31	3.68	14	—	—	3.68
July.....	66.7	76.2	57.2	88	47	96	39	4.02	15	—	—	4.02
Aug.....	63.6	72.8	54.4	84	44	96	37	3.98	12	—	—	3.98
Sept.....	55.8	64.0	47.5	79	34	88	22	3.60	14	—	1	3.60
Oct.....	44.0	51.0	36.9	67	24	81	14	3.23	14	1.8	2	3.41
Nov.....	29.9	35.7	24.2	53	6	71	-14	1.79	9	14.4	10	3.23
Dec.....	15.5	22.2	8.8	40	-14	55	-32	0.71	3	25.1	16	3.22
Year....	39.2	47.4	31.0	89	-23	96	-34	27.48	108	123.7	78	39.85
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	FROST <sup>2</sup>	HUMIDITY		
	Day- Degrees Below 65°F.	Most Prevalent		Second Prevalent		Average Speed	Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative	
		Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour					24- Hour	Noon
	Jan.....	1,696	SW.	32	W.	25	12.7	—	83	31	1.1	85
Feb.....	1,528	SW.	29	W.	25	12.6	1	106	28	1.3	87	80
Mar.....	1,311	NE.	29	SW.	26	12.7	1	145	27	2.4	79	69
Apr.....	849	NE.	34	SW.	21	12.1	1	163	18	3.3	76	68
May.....	428	NE.	35	SW.	21	12.1	2	195	1	5.4	70	55
June.....	124	SW.	27	NE.	26	9.9	4	209	—	8.3	72	56
July.....	29	SW.	34	NE.	18	8.7	7	225	—	10.6	74	57
Aug.....	50	SW.	30	W.	21	8.3	5	209	—	10.3	76	59
Sept.....	276	SW.	27	NE.	24	9.2	2	155	1	7.9	77	61
Oct.....	651	SW.	29	NE.	22	10.4	1	119	6	5.1	76	63
Nov.....	1,050	SW.	27	NE.	26	11.2	1	69	20	3.1	81	75
Dec.....	1,534	SW.	31	W.	26	11.8	1	67	26	1.4	86	80
Year....	9,526	SW.	28	NE.	25	11.0	22	1,745	157	5.0	78	67

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost May 11; of first autumn frost Oct. 4.



## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

KAPUSKASING, ONT.—49°25'N. 82°25'W. 752 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION				
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)
				Average		Record						
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days	
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	in.
Jan.....	-1.7	10.3	-13.7	35	-35	47	-53	0.04	1	19.6	19	2.00
Feb.....	2.4	15.1	-10.2	34	-34	53	-52	0.06	1	10.0	16	1.06
Mar.....	13.6	26.5	0.7	50	-26	67	-45	0.23	1	13.3	12	1.53
Apr.....	30.9	42.6	19.2	68	-3	85	-23	0.89	4	9.3	6	1.82
May.....	45.7	58.3	33.1	82	21	91	9	1.80	12	3.2	1	2.12
June.....	57.4	70.4	44.5	89	30	96	20	2.33	13	-	1	2.33
July.....	62.4	74.5	50.2	90	37	101	31	3.43	14	—	—	3.43
Aug.....	60.2	71.7	48.6	86	36	95	25	2.94	16	—	—	2.94
Sept.....	51.1	61.6	40.6	83	25	89	20	3.47	15	0.7	1	3.54
Oct.....	38.8	47.0	30.6	72	16	82	4	2.14	12	3.6	5	2.50
Nov.....	22.0	29.6	14.4	54	-13	68	-33	0.88	5	15.1	15	2.39
Dec.....	6.3	15.8	-3.2	39	-30	60	-49	0.28	1	16.2	18	1.90
Year....	32.4	43.6	21.2	91	-38	101	-53	18.49	95	91.0	93	27.59
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	FROST <sup>2</sup>	HUMIDITY		
	Day- Degrees Below 65°F.	Most Prevalent		Second Prevalent		Average Speed	Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative	
		Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour					24- Hour	Noon
		No.									p.c.	p.c.
Jan.....	2,068	NW.	22	W.	21	9.6	—	80	31	0.7	91	89
Feb.....	1,809	NW.	24	W.	19	10.1	—	104	28	0.9	90	86
Mar.....	1,593	NW.	20	N.	16	10.4	—	128	29	1.4	84	76
Apr.....	1,023	N.	21	NW.	20	10.1	—	165	26	2.7	72	61
May.....	598	N.	21	NW.	15	9.7	2	214	12	4.9	70	56
June.....	251	N.	18	SW.	15	9.2	3	226	2	7.4	71	58
July.....	104	SW.	21	S.	20	8.7	4	233	—	9.3	73	57
Aug.....	128	S.	22	SW.	20	8.7	3	198	1	8.9	78	62
Sept.....	417	S.	25	NW.	17	10.0	2	132	6	6.6	83	69
Oct.....	812	S.	23	NW.	16	10.3	1	82	18	4.1	84	73
Nov.....	1,290	W.	21	S.	19	10.2	—	49	28	2.3	90	83
Dec.....	1,820	NW.	20	S.	20	10.2	—	52	31	1.0	90	86
Year....	11,913	S.	18	NW.	18	9.8	15	1,663	211	4.2	81	71

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost June 14; of first autumn frost Sept. 1.

## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

LONDON, ONT.—43°02'N. 81°09'W. 912 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION				
	Average Daily			Extremes				Rain		Snow		Total Pre- cipitation (water)
				Average		Record						
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days	
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	in.
Jan.....	21.9	29.3	14.6	46	—8	61	—25	1.64	7	23.3	14	3.9
Feb.....	20.7	28.9	12.5	46	—10	58	—27	1.22	5	22.3	14	3.45
Mar.....	30.4	39.1	21.8	60	1	79	—14	1.68	9	11.3	9	2.81
Apr.....	43.6	53.8	33.3	76	19	87	—	2.49	10	3.8	4	2.87
May.....	55.1	66.6	43.6	84	29	94	24	2.80	12	0.1	1	2.81
June.....	64.8	76.5	53.0	90	38	99	32	3.11	11	—	—	3.11
July.....	69.4	81.3	57.6	93	44	102	35	3.21	10	—	—	3.21
Aug.....	67.1	78.9	55.3	91	41	106	34	2.80	9	—	—	2.80
Sept.....	60.8	72.0	49.6	87	32	96	26	2.96	11	—	1	2.96
Oct.....	48.6	58.5	38.6	76	24	86	14	2.82	12	0.9	1	2.91
Nov.....	36.9	44.1	29.7	62	14	74	—8	2.66	10	10.8	6	3.74
Dec.....	26.3	32.8	19.8	50	—2	62	—22	1.62	7	19.1	14	3.53
Year...	45.5	55.2	35.8	95	—14	106	—27	29.01	113	91.6	62	38.17
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	FROST <sup>2</sup>	HUMIDITY		
	Day- Degrees Below 65°F.	Most Prevalent		Second Prevalent		Average Speed	Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative	
		Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour					24- Hour	Noon
Jan.....	1,336	W.	24	SW.	22	11.9	1	60	30	2.0	89	84
Feb.....	1,279	W.	26	NW.	20	12.5	1	85	28	2.1	87	80
Mar.....	1,073	W.	22	E.	16	12.2	1	129	27	3.0	79	70
Apr.....	642	NW.	22	SW.	17	12.2	2	165	17	4.7	74	60
May.....	307	NW.	19	SW.	18	10.3	3	224	2	7.1	76	62
June.....	125	NW.	18	SW.	17	8.6	4	242	—	10.7	76	62
July.....	22	NW.	20	SW.	17	7.5	5	289	—	11.7	74	57
Aug.....	39	NW.	17	SW.	17	7.6	4	249	—	11.3	78	60
Sept.....	126	E.	18	S.	17	8.6	2	175	1	8.9	81	64
Oct.....	508	SW.	21	NW.	16	9.3	1	156	8	5.9	82	66
Nov.....	843	SW.	25	W.	17	11.2	1	80	19	4.1	86	78
Dec.....	1,200	W.	26	SW.	25	11.2	1	60	28	2.6	88	82
Year...	7,500	SW.	19	W.	17	10.3	23	1,914	159	6.2	81	69

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost May 16; of first autumn frost Oct. 1.

## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

OTTAWA, ONT.—45°20'N. 75°41'W. 339 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION				
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)
				Average		Record						
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days	
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	in.
Jan.....	11.9	20.8	3.0	40	—21	54	—32	0.78	4	21.5	10	2.93
Feb.....	12.9	22.3	3.5	40	—20	54	—35	0.44	3	17.3	11	2.17
Mar.....	24.5	33.1	15.9	49	—8	78	—34	1.33	5	14.4	9	2.77
Apr.....	40.8	50.5	31.0	72	15	86	—2	2.26	9	4.4	2	2.70
May.....	55.0	66.0	44.1	84	30	94	21	2.47	11	--	1	2.47
June.....	64.6	75.6	53.7	89	41	97	33	3.52	10	—	—	3.52
July.....	69.6	80.9	58.2	92	47	101	38	3.39	11	—	—	3.39
Aug.....	66.2	77.0	55.4	89	43	100	35	2.56	10	—	—	2.56
Sept.....	58.2	68.4	48.1	85	33	102	24	3.23	11	—	—	3.23
Oct.....	45.8	54.3	37.2	72	23	87	14	2.85	12	0.8	1	2.93
Nov.....	32.2	38.5	25.8	58	5	71	—10	2.34	8	6.4	4	2.98
Dec.....	16.8	24.4	9.1	43	—17	55	—34	0.86	4	17.2	11	2.58
Year....	41.5	51.0	32.1	93	—24	102	—35	26.03	98	82.0	47	34.23
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	FROST <sup>2</sup>	HUMIDITY		
	Day- Degrees Below 65°F.	Most Prevalent		Second Prevalent		Average Speed	Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative	
		Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour					24- Hour	Noon
		No.									p.c.	p.c.
Jan.....	1,646	W.	21	NW.	19	8.0	—	91	31	1.0	81	76
Feb.....	1,505	W.	22	E.	19	7.4	1	116	28	1.3	81	73
Mar.....	1,256	E.	20	NW.	19	7.8	1	150	29	2.0	76	66
Apr.....	726	E.	20	W.	17	8.4	1	186	16	3.7	71	58
May.....	310	W.	19	SW.	19	7.6	2	232	2	6.6	70	55
June.....	133	W.	21	SW.	20	6.5	4	253	—	9.4	71	56
July.....	22	W.	23	SW.	19	5.7	5	273	—	10.9	71	53
Aug.....	40	W.	25	SW.	17	5.9	3	250	—	10.1	72	54
Sept.....	204	W.	18	NW.	16	6.2	2	177	1	7.7	78	59
Oct.....	595	SW.	19	W.	18	7.3	1	136	12	4.9	77	63
Nov.....	984	W.	18	E.	18	8.2	1	80	24	3.0	77	68
Dec.....	1,494	W.	20	E.	20	7.7	—	72	30	1.4	80	75
Year....	8,915	W.	20	NW.	15	7.2	19	2,016	173	5.2	75	63

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost May 7; of first autumn frost Oct. 2.

## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

PORT ARTHUR, ONT.—48°26'N. 89°14'W. 644 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION				
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)
				Average		Record						
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days	
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	
Jan.....	6.7	16.9	-3.5	36	-28	48	-40	0.02	1	8.9	11	0.91
Feb.....	9.2	19.9	-1.5	39	-25	52	-39	0.05	1	7.1	9	0.76
Mar.....	20.3	30.8	9.8	47	-13	73	-34	0.15	1	8.0	8	0.95
Apr.....	35.4	44.3	26.5	62	8	83	-10	1.11	5	3.8	4	1.49
May.....	46.7	56.3	37.1	76	25	90	16	2.06	11	0.5	1	2.11
June.....	57.3	67.3	47.2	84	35	94	20	2.81	14	—	—	2.81
July.....	63.0	73.6	52.4	88	42	104	35	3.56	11	—	—	3.56
Aug.....	60.1	71.0	49.1	84	38	95	31	2.78	12	—	—	2.78
Sept.....	53.2	62.4	43.9	78	29	89	17	3.37	10	--	1	3.37
Oct.....	41.7	49.8	33.6	68	18	81	4	2.33	9	1.2	1	2.45
Nov.....	26.9	34.5	19.3	51	-2	69	-22	0.93	4	5.9	8	1.52
Dec.....	13.5	22.3	4.7	40	-20	52	-38	0.20	1	7.5	11	0.95
Year....	36.2	45.8	26.6	89	-30	104	-40	19.37	78	42.9	53	23.66
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE <sup>2</sup>	FROST <sup>3</sup>	HUMIDITY		
		Most Prevalent		Second Prevalent		Average Speed				Days with	Hours of	Days with
		Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour	24- Hour	Noon				
							No.	p.c.	p.c.			
Jan.....	1,807	NW.	32	W.	20	7.9	—	95	31	1.1	85	76
Feb.....	1,631	NW.	28	NE.	21	8.3	—	119	28	1.1	84	73
Mar.....	1,386	NE.	24	NW.	24	8.9	1	153	30	2.0	77	64
Apr.....	888	NE.	29	NW.	19	8.8	1	189	24	3.1	70	56
May.....	567	NE.	31	NW.	17	8.7	1	188	10	4.9	72	56
June.....	313	NE.	27	NW.	17	7.9	3	210	1	7.7	78	63
July.....	96	NW.	20	NE.	19	6.8	4	262	—	9.7	80	63
Aug.....	129	NW.	22	NE.	18	7.1	4	219	1	9.7	81	65
Sept.....	354	NW.	24	NE.	17	7.9	2	128	5	7.0	84	70
Oct.....	722	NW.	25	W.	18	8.9	1	106	17	4.4	80	64
Nov.....	1,143	NW.	30	W.	18	8.8	—	52	25	2.6	80	72
Dec.....	1,596	NW.	30	W.	21	8.3	—	68	31	1.3	84	74
Year....	10,632	NW.	24	NE.	20	8.2	16	1,789	202	4.6	80	66

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Sunshine data for Armstrong, Ont.<sup>3</sup> Average date of

last spring frost May 26; of first autumn frost Sept. 20.



## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

TORONTO (QUEEN'S PARK), ONT.—43°40'N. 79°24'W. 379 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION				
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)
				Average		Record						
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days	
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	
Jan.....	22.7	29.6	15.7	45	—6	58	—26	1.11	5	16.0	12	2.7
Feb.....	22.2	29.5	14.8	45	—6	55	—25	0.90	4	15.3	11	2.43
Mar.....	30.0	37.1	22.9	54	2	80	—16	1.51	7	10.7	8	2.58
Apr.....	42.1	50.2	34.0	70	21	90	5	2.20	11	2.8	3	2.48
May.....	53.4	62.8	44.0	80	32	93	25	2.90	12	0.1	1	2.91
June.....	63.5	73.2	53.7	87	42	97	28	2.67	11	—	1	2.67
July.....	68.9	78.8	59.0	91	49	105	39	2.95	10	—	—	2.95
Aug.....	67.2	76.7	57.7	88	46	102	40	2.73	10	—	—	2.73
Sept.....	59.8	68.8	50.8	84	36	96	28	2.90	11	—	1	2.90
Oct.....	47.9	55.8	40.0	72	26	85	16	2.40	10	0.3	1	2.43
Nov.....	37.2	43.3	31.0	59	10	70	—5	2.34	10	4.2	4	2.76
Dec.....	26.9	33.0	20.7	48	—1	61	—22	1.39	6	12.4	10	2.63
Year....	45.1	53.2	37.0	93	—11	105	—26	26.00	107	61.8	49	32.18
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	FROST <sup>2</sup>	HUMIDITY		
		Most Prevalent		Second Prevalent		Average Speed				Days with	Hours of	Days with
		Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour	24- Hour	Noon				
							No.					
		Jan.....	1,304	W.	24	SW.	23	14.7	1	77	29	1.8
Feb.....	1,206	W.	22	SW.	20	13.6	1	107	27	1.9	73	68
Mar.....	1,072	NW.	21	W.	18	13.8	1	149	22	2.5	70	63
Apr.....	669	NW.	18	NE.	16	12.7	2	184	9	4.0	67	58
May.....	341	E.	16	SW.	16	10.2	3	224	1	6.1	65	57
June.....	86	SW.	18	E.	17	8.8	5	260	—	9.8	70	60
July.....	16	SW.	17	NW.	15	8.0	6	287	—	11.3	70	58
Aug.....	35	E.	15	SW.	15	8.4	5	256	—	10.6	73	60
Sept.....	168	E.	16	NW.	14	9.3	3	200	—	8.3	76	63
Oct.....	504	W.	18	SW.	17	10.6	1	151	2	5.5	77	65
Nov.....	817	SW.	23	W.	20	12.8	1	85	13	4.0	76	69
Dec.....	1,155	W.	24	SW.	23	13.9	1	68	24	2.3	76	72
Year....	7,373	SW.	18	W.	17	11.3	25	2,048	126	5.6	72	64

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost May 2; of first autumn frost Oct. 14.

## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

CHURCHILL, MAN.—58°47'N. 94°11'W. 43 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION					
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)	
				Average		Record							
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days		
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	in.	
Jan.....	-19.0	-11.3	-26.7	19	-40	39	-57	—	—	4.8	5	0.48	
Feb.....	-16.7	-8.0	-25.4	16	-37	31	-52	—	—	6.1	6	0.61	
Mar.....	-6.1	4.1	-16.2	30	-32	41	-52	0.02	1	8.5	6	0.87	
Apr.....	14.0	23.7	4.2	43	-19	62	-26	0.12	1	7.7	5	0.89	
May.....	29.6	37.7	21.5	61	4	87	-14	0.75	5	1.8	2	0.93	
June.....	42.6	51.7	33.6	74	26	88	13	1.71	9	1.4	1	1.85	
July.....	53.7	64.5	42.8	82	36	96	22	2.19	10	--	1	2.19	
Aug.....	52.4	62.1	42.6	79	38	90	25	2.69	12	--	1	2.69	
Sept.....	41.8	49.0	34.5	69	26	84	15	2.16	10	1.7	1	2.33	
Oct.....	26.7	33.5	19.9	52	6	65	-17	0.63	5	8.0	8	1.43	
Nov.....	5.9	13.3	-1.6	32	-20	45	-53	—	—	10.3	9	1.03	
Dec.....	-11.0	-3.1	-18.9	22	-34	34	-47	—	—	6.6	8	0.66	
Year....	17.8	26.4	9.2	84	-42	96	-57	10.27	52	56.9	51	15.96	
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	Frost <sup>2</sup>	HUMIDITY			
		Most Prevalent		Second Prevalent		Average Speed				Water- Vapour (parts per 1,000)	Relative		
		Day- Degrees Below 65°F.	Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour	Days with	Hours of		Days with	24- Hour	Noon
		No.						No.	No.		No.		p.c.
Jan.....	2,604	NW.	33	W.	31	14.6	—	52	31	3	3	3	
Feb.....	2,363	NW.	36	W.	20	14.6	—	110	28	3	3	3	
Mar.....	2,204	NW.	33	N.	15	14.2	—	144	31	3	3	3	
Apr.....	1,530	NW.	25	N.	18	14.2	1	191	30	0.9	91	88	
May.....	1,097	N.	22	E.	18	13.4	1	127	27	2.4	90	86	
June.....	634	N.	21	E.	21	12.0	1	181	11	4.3	82	73	
July.....	280	NW.	16	E.	16	11.4	1	249	1	6.9	79	71	
Aug.....	328	N.	17	NW.	16	12.8	1	227	1	6.9	84	74	
Sept.....	696	NW.	22	N.	18	16.1	1	95	5	4.7	89	84	
Oct.....	1,187	NW.	29	W.	15	17.1	—	70	22	3.3	92	89	
Nov.....	1,773	NW.	34	W.	22	16.9	—	28	30	1.1	94	91	
Dec.....	2,356	NW.	28	W.	27	14.9	—	29	31	0.4	95	93	
Year....	17,052	NW.	25	W.	16	14.4	3	1,503	247				

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost June 28; of first autumn frost Aug. 26.<sup>3</sup> Humidity readings unobtainable under winter conditions.

## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

THE PAS, MAN.—53°49'N. 101°15'W. 890 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION				
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)
				Average		Record						
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days	
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	
Jan.....	-8.7	0.7	-18.1	25	-42	44	-54	—	—	6.1	6	0.61
Feb.....	-1.6	10.0	-13.1	37	-37	56	-54	—	—	5.0	7	0.50
Mar.....	11.2	24.1	-1.8	46	-27	59	-43	0.02	1	7.0	7	0.72
Apr.....	32.7	44.7	20.7	66	-2	85	-21	0.35	3	4.6	3	0.81
May.....	48.2	60.1	36.2	80	21	93	13	1.28	7	1.0	1	1.38
June.....	59.2	70.1	48.2	85	34	92	25	2.20	11	—	—	2.20
July.....	64.6	75.4	53.8	88	41	100	32	2.22	10	—	—	2.22
Aug.....	60.6	71.7	49.6	85	36	96	22	2.11	10	—	—	2.11
Sept.....	48.9	60.0	37.8	78	26	90	19	1.95	10	0.1	1	1.96
Oct.....	35.3	45.0	25.6	66	11	80	-10	0.75	7	4.1	2	1.16
Nov.....	16.6	25.1	8.2	44	-14	58	-33	0.07	1	9.1	8	0.98
Dec.....	0.6	8.9	-7.8	34	-33	48	-51	—	—	7.9	8	0.79
Year....	30.6	41.3	19.9	92	-43	100	-54	10.95	59	44.9	42	15.44
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	Frost <sup>2</sup>	HUMIDITY		
		Most Prevalent		Second Prevalent		Average Speed				Days with	Hours of	Days with
		Day- Degrees Below 65°F.	Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour	No.	No.			
		No.								No.	No.	No.
		Jan.....	2,285	NW.	22	W.	17	6.4	—	95	31	0.6
Feb.....	1,924	NW.	16	NE.	15	6.4	—	133	28	0.4	84	82
Mar.....	1,668	NE.	20	SE.	17	6.9	—	172	31	1.7	82	75
Apr.....	969	NE.	22	SE.	22	7.6	—	219	25	2.4	72	62
May.....	521	NE.	26	SE.	23	8.1	1	248	9	3.9	67	56
June.....	205	NE.	27	SE.	18	7.7	1	230	1	6.6	67	62
July.....	39	NW.	17	SW.	16	6.7	1	287	—	10.0	73	61
Aug.....	129	NW.	17	SW.	15	6.7	2	253	—	9.0	77	64
Sept.....	483	NW.	17	NE.	16	7.1	1	159	6	5.7	74	62
Oct.....	921	NW.	16	SE.	16	7.3	—	114	18	4.1	80	73
Nov.....	1,452	NW.	20	SE.	15	6.7	—	76	29	1.4	86	82
Dec.....	1,996	NW.	21	SE.	15	6.4	—	73	31	0.6	90	89
Year....	12,592	NW.	17	NE.	17	7.0	4	2,059	208	3.9	79	72

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost May 30; of first autumn frost Sept. 7.

## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

WINNIPEG, MAN.—49°54'N. 97°14'W. 786 FEET ABOVE SEA

	TEMPERATURE								PRECIPITATION								
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)					
				Average		Record											
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days						
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.		in.				
Jan.....	-3.1	6.7	-12.9	31	-37	46	-48	0.01	1	9.1	12	0.92					
Feb.....	1.6	12.1	-8.8	36	-33	47	-47	0.02	1	8.4	10	0.86					
Mar.....	15.6	26.6	4.7	46	-21	74	-38	0.19	1	10.0	8	1.19					
Apr.....	37.6	48.4	26.9	71	6	90	-18	0.98	6	3.9	3	1.37					
May.....	52.2	64.8	39.5	84	23	100	11	2.15	10	1.1	1	2.26					
June.....	62.4	74.4	50.4	89	35	101	21	3.15	12	-	1	3.15					
July.....	66.9	78.8	55.0	91	43	108	35	3.08	10	—	—	3.08					
Aug.....	63.9	76.3	51.5	91	38	103	30	2.45	10	—	—	2.45					
Sept.....	54.0	65.2	42.7	84	27	99	17	2.34	9	0.1	1	2.35					
Oct.....	41.0	50.8	31.2	72	15	86	-5	1.20	5	2.9	2	1.49					
Nov.....	21.6	29.8	13.5	51	-12	71	-34	0.22	3	9.0	7	1.12					
Dec.....	6.0	15.0	-3.0	37	-29	53	-54	0.04	1	9.1	10	0.95					
Year....	35.0	45.7	24.2	94	-38	108	-54	15.83	67	53.6	53	21.19					
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	Frost <sup>2</sup>	HUMIDITY							
		Most Prevalent		Second Prevalent		Average Speed				Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative			
														24- Hour	Noon		
		Day- Degrees Below 65°F.	Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour	No.	No.					No.		p.c.	p.c.
Jan.....	2,111	NW.	23	S.	17	10.0	—	100	31	0.9	86	83					
Feb.....	1,830	NW.	23	S.	13	10.2	1	131	28	0.9	89	83					
Mar.....	1,531	NW.	24	N.	16	10.6	1	168	29	1.7	84	78					
Apr.....	822	NW.	18	SE.	18	10.4	1	204	19	3.4	68	57					
May.....	397	N.	18	SE.	18	11.3	2	247	8	5.4	64	52					
June.....	140	SE.	17	NW.	17	10.3	5	252	1	8.1	71	60					
July.....	40	NW.	19	SE.	18	9.1	6	291	—	10.3	68	53					
Aug.....	70	SE.	18	NW.	17	9.7	4	263	—	9.3	69	53					
Sept.....	330	NW.	19	SE.	18	10.5	2	177	5	6.9	74	61					
Oct.....	744	NW.	22	SE.	17	10.6	1	127	14	4.3	74	62					
Nov.....	1,302	NW.	23	S.	13	10.7	1	86	28	2.3	84	79					
Dec.....	1,829	NW.	22	S.	16	10.2	1	78	31	1.1	89	85					
Year....	11,146	NW.	20	SE.	16	10.3	19	2,124	193	4.6	77	67					

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost May 27; of first autumn frost Sept. 14.



**1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.**

NOTE.—For full explanation of terms used and observing methods see p. 34.

REGINA, SASK.—50°26'N. 104°39'W. 1,884 FEET ABOVE SEA.

	TEMPERATURE							PRECIPITATION				
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)
				Average		Record						
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days	
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	in.
Jan.....	0.7	9.5	-10.9	36	-38	48	-54	0.04	1	4.7	8	0.51
Feb.....	2.0	12.6	-8.6	37	-35	53	-56	0.01	1	3.4	13	0.35
Mar.....	16.5	26.9	6.1	47	-22	76	-44	0.13	1	5.4	9	0.67
Apr.....	37.8	49.7	26.0	73	5	89	-20	0.44	5	3.0	3	0.74
May.....	51.0	64.8	37.1	85	20	99	7	1.78	8	0.6	1	1.84
June.....	60.2	73.2	47.2	90	32	102	23	3.24	12	0.1	1	3.25
July.....	64.8	78.9	50.8	93	38	107	28	2.38	11	—	—	2.38
Aug.....	62.2	76.9	47.6	92	34	104	23	1.76	9	—	—	1.76
Sept.....	51.4	64.9	38.0	85	21	99	9	1.26	6	0.6	1	1.32
Oct.....	39.4	51.8	27.0	75	8	87	-15	0.63	4	2.3	2	0.86
Nov.....	21.3	31.6	11.0	55	-14	73	-47	0.12	1	4.8	9	0.60
Dec.....	7.6	16.4	-1.3	41	-29	59	-55	0.03	1	3.9	9	0.42
Year....	34.5	46.4	22.5	96	-42	107	-56	11.82	59	28.8	54	14.70
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	FROST <sup>2</sup>	HUMIDITY		
	Day- Degrees Below 65°F.	Most Prevalent		Second Prevalent		Average Speed	Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative	
		Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour					24- Hour	Noon
		No.									p.c.	p.c.
Jan.....	2,037	SE.	24	W.	23	12.0	—	108	31	1.0	89	86
Feb.....	1,818	SE.	26	W.	19	12.1	—	126	28	1.1	91	88
Mar.....	1,504	SE.	23	NW.	18	13.2	—	163	31	1.9	87	83
Apr.....	816	SE.	24	NW.	16	13.9	1	216	23	3.7	70	60
May.....	434	SE.	19	E.	19	14.0	2	252	6	5.3	60	47
June.....	174	E.	18	SE.	17	13.4	3	244	1	7.7	69	57
July.....	48	W.	18	SE.	18	11.4	5	329	—	9.7	68	54
Aug.....	92	SE.	21	W.	17	12.3	4	285	—	8.6	65	52
Sept.....	408	W.	20	SE.	19	12.6	1	205	4	6.0	69	56
Oct.....	794	SE.	24	W.	23	12.9	—	170	17	4.3	70	58
Nov.....	1,355	SE.	26	W.	21	13.0	—	98	30	2.0	88	83
Dec.....	1,779	SE.	27	W.	21	12.1	—	98	31	1.3	88	84
Year....	11,259	SE.	22	W.	18	12.7	14	2,294	201	4.4	76	67

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost June 6; of first autumn frost Sept. 10.

# 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

SASKATOON, SASK.—52°08'N. 106°38'W. 1,690 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION							
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)			
				Average		Record									
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days				
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.		in.		
Jan.....	-1.2	8.9	-11.4	37	-37	50	-55	—	—	8.7	9	0.87			
Feb.....	2.8	13.4	-7.7	38	-34	55	-49	—	—	5.0	10	0.50			
Mar.....	16.6	27.0	6.3	48	-18	73	-34	0.04	1	6.2	6	0.66			
Apr.....	37.4	48.6	26.2	72	8	91	-9	0.47	4	2.5	3	0.72			
May.....	51.0	63.7	38.2	85	24	99	9	1.39	9	0.3	1	1.42			
June.....	59.6	71.3	47.8	88	34	104	26	2.57	12	—	—	2.57			
July.....	64.6	77.1	52.0	92	41	104	31	2.41	9	—	—	2.41			
Aug.....	61.6	74.8	48.3	91	36	100	28	1.94	9	—	—	1.94			
Sept.....	50.8	63.4	38.1	83	24	92	12	1.38	8	0.8	1	1.46			
Oct.....	39.2	51.2	27.3	73	11	90	-14	0.62	5	2.6	2	0.88			
Nov.....	21.6	31.2	12.1	52	-12	68	-31	0.01	1	5.0	8	0.51			
Dec.....	6.7	15.8	-2.4	40	-29	58	-41	—	—	6.1	7	0.61			
Year....	34.2	45.5	22.9	95	-41	104	-55	10.83	57	37.2	47	14.55			
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	FROST <sup>2</sup>	HUMIDITY					
		Most Prevalent		Second Prevalent		Average Speed				Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative	
														24- Hour	Noon
		Direction	Per- cent- age	Direction	Per- cent- age	Miles per Hour								No.	No.
Jan.....	2,027	W.	19	S.	16	9.5	—	94	31	0.9	92	89			
Feb.....	1,686	W.	18	SE.	13	9.3	—	148	28	1.1	92	90			
Mar.....	1,445	SE.	16	W.	15	11.1	1	190	31	1.7	86	85			
Apr.....	725	SE.	19	N.	16	12.6	1	221	22	3.6	67	56			
May.....	397	SE.	20	N.	15	13.0	1	263	6	4.9	63	51			
June.....	214	N.	16	SE.	15	11.4	4	266	1	6.9	66	54			
July.....	42	SE.	16	W.	15	10.2	5	345	—	9.1	66	53			
Aug.....	96	W.	18	SE.	16	10.6	4	304	—	8.4	68	56			
Sept.....	396	W.	17	N.	15	10.2	1	208	4	5.9	69	58			
Oct.....	781	W.	21	S.	16	11.7	1	170	16	4.3	73	62			
Nov.....	1,305	SW.	19	W.	15	10.8	—	93	29	1.9	86	82			
Dec.....	1,767	S.	18	W.	15	10.2	—	86	31	1.1	89	87			
Year....	10,881	W.	16	SE.	15	10.9	15	2,388	198	4.2	76	69			

<sup>1</sup> Less than 5 days in 10 years.

<sup>2</sup> Average date of last spring frost May 26; of first autumn frost Sept. 9.

## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

EDMONTON, ALTA.—53°35'N. 113°30'W. 2,219 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION				
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)
				Average		Record						
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days	
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	
Jan.....	5.9	15.3	−3.5	43	−36	57	−57	0.05	1	8.3	12	0.88
Feb.....	11.4	21.8	1.0	48	−32	62	−57	0.01	1	6.3	9	0.64
Mar.....	23.2	34.2	12.3	54	−17	72	−40	0.06	1	7.0	10	0.76
Apr.....	40.2	52.1	28.3	72	10	88	−15	0.47	4	4.1	5	0.88
May.....	51.3	64.3	38.3	81	25	94	10	1.66	11	1.9	1	1.85
June.....	57.5	69.9	45.1	85	33	99	25	3.06	15	--	1	3.06
July.....	61.6	74.1	49.0	87	39	98	29	3.32	14	—	—	3.32
Aug.....	59.3	71.9	46.7	85	35	96	26	2.35	12	--	1	2.35
Sept.....	50.2	62.5	37.8	80	24	90	12	1.24	9	0.9	1	1.33
Oct.....	40.9	52.2	29.6	73	12	83	−15	0.40	5	3.5	4	0.75
Nov.....	24.7	33.6	15.8	56	−12	74	−44	0.07	2	6.8	9	0.75
Dec.....	13.1	21.4	4.8	45	−27	61	−46	0.05	1	7.6	11	0.81
Year....	36.6	47.8	25.4	89	−41	99	−57	12.74	73	46.4	62	17.38
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	Frost <sup>2</sup>	HUMIDITY		
	Day- Degrees Below 65°F.	Most Prevalent		Second Prevalent		Average Speed	Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative	
		Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour					24- Hour	Noon
		No.									p.c.	p.c.
Jan.....	1,807	S.	25	SW.	20	7.2	—	79	31	1.3	81	78
Feb.....	1,560	S.	20	NW.	14	8.3	—	119	28	1.6	79	75
Mar.....	1,299	S.	25	NW.	15	9.3	—	169	30	2.1	75	68
Apr.....	741	S.	23	SE.	16	10.6	—	222	18	3.4	61	50
May.....	428	NW.	17	W.	15	9.7	1	253	6	5.0	60	47
June.....	228	W.	19	NW.	15	9.7	4	250	1	7.1	71	65
July.....	102	NW.	22	W.	22	8.6	6	303	—	9.1	68	58
Aug.....	174	W.	20	NW.	17	8.3	4	269	—	8.1	71	58
Sept.....	444	S.	20	NW.	19	8.4	1	188	5	6.0	72	61
Oct.....	750	S.	26	NW.	17	8.7	—	153	17	4.1	70	62
Nov.....	1,227	S.	22	W.	15	7.9	—	98	29	2.3	80	74
Dec.....	1,596	S.	24	SW.	18	7.4	—	75	31	1.4	82	78
Year....	10,356	S.	20	W.	16	8.7	15	2,178	195	4.3	72	64

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost May 30; of first autumn frost Sept. 6.

## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

GRANDE PRAIRIE, ALTA.—55°10'N. 118°53'W. 2,190 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION							
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)			
				Average		Record									
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days				
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.		in.		
Jan.....	10.3	20.6	0.1	45	-26	50	-58	0.02	1	12.8	8	1.30			
Feb.....	8.6	18.8	-1.7	47	-29	51	-55	0.03	1	14.5	12	1.48			
Mar.....	20.2	31.1	9.4	53	-11	59	-35	0.07	2	7.3	10	0.80			
Apr.....	36.7	47.3	26.1	69	8	76	-13	0.24	4	5.3	4	0.77			
May.....	50.9	63.2	38.6	79	28	85	21	1.41	10	0.4	1	1.45			
June.....	56.8	68.0	45.6	81	35	87	32	2.44	12	—	—	2.44			
July.....	61.0	73.4	48.7	88	40	92	34	2.01	12	—	—	2.01			
Aug.....	58.6	71.3	45.9	85	36	94	27	1.53	12	--	1	1.53			
Sept.....	50.9	62.6	39.2	80	26	88	19	1.44	11	0.9	1	1.53			
Oct.....	41.5	52.8	30.2	72	12	84	-2	0.70	7	1.5	3	0.85			
Nov.....	18.2	26.2	10.3	54	-10	58	-28	0.21	3	9.5	9	1.16			
Dec.....	10.4	19.6	1.1	45	-22	56	-38	0.05	2	10.4	9	1.09			
Year....	35.3	46.2	24.5	90	-38	94	-58	10.15	76	62.6	57	16.41			
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	FROST <sup>2</sup>	HUMIDITY					
		Most Prevalent		Second Prevalent		Average Speed				Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative	
														24- Hour	Noon
		Direction	Per- cent- age	Direction	Per- cent- age	Miles per Hour	No.	No.	No.	p.c.	p.c.				
Jan.....	1,841	W.	21	NW.	21	8.3	—	78	29	1.1	88	89			
Feb.....	1,502	W.	20	NW.	19	7.6	—	114	28	1.4	87	83			
Mar.....	1,339	W.	25	SW.	16	9.1	—	153	30	2.0	78	77			
Apr.....	822	W.	25	NE.	19	10.2	1	218	20	3.6	68	60			
May.....	505	W.	23	E.	16	10.9	2	264	6	4.7	58	49			
June.....	237	W.	26	SW.	17	10.2	2	254	1	6.9	67	58			
July.....	153	W.	33	SW.	24	10.9	2	302	—	7.4	60	50			
Aug.....	226	W.	27	SW.	25	9.8	1	257	1	7.1	62	52			
Sept.....	480	W.	24	SW.	24	10.5	1	173	3	5.7	68	61			
Oct.....	812	W.	28	SW.	19	9.4	—	135	15	4.1	72	66			
Nov.....	1,218	W.	16	N.	16	6.9	—	83	26	1.7	89	86			
Dec.....	1,649	W.	26	NW.	13	7.9	—	69	31	1.3	87	88			
Year....	10,784	W.	24	SW.	17	9.3	7	2,100	189	3.9	74	68			

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost June 5; of first autumn frost Aug. 18.



## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

LETHBRIDGE, ALTA.—49°53'N. 112°51'W. 2,961 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION				
	Average Daily			Extremes				Rain		Snow		Total Pre- cipitation (water)
				Average		Record						
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days	
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	
Jan.....	16.0	26.9	5.1	51	—28	65	—45	0.02	1	5.6	6	0.58
Feb.....	19.6	30.8	8.3	53	—25	66	—44	0.01	1	6.4	11	0.65
Mar.....	28.8	40.2	17.4	64	—10	74	—36	0.04	2	8.9	8	0.93
Apr.....	41.7	54.7	28.7	75	10	88	—14	0.48	4	7.2	4	1.20
May.....	50.8	63.8	37.9	82	25	96	12	1.73	9	1.2	1	1.85
June.....	58.8	71.6	46.0	87	34	98	29	2.67	12	—	—	2.67
July.....	64.2	78.4	49.9	91	39	102	33	1.60	9	—	—	1.60
Aug.....	62.2	76.8	47.6	90	36	97	29	1.48	6	—	—	1.48
Sept.....	52.6	65.8	39.3	83	24	91	4	1.40	7	1.1	1	1.51
Oct.....	43.5	56.0	31.0	76	17	89	—15	0.49	3	5.3	2	1.02
Nov.....	30.6	41.6	19.5	59	—8	74	—25	0.03	1	7.4	6	0.77
Dec.....	21.0	31.2	10.8	54	—25	67	—45	0.01	1	7.4	6	0.75
Year....	40.8	53.2	28.5	93	—34	102	—45	9.96	53	50.5	45	15.01
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	FROST <sup>2</sup>	HUMIDITY		
	Day- Degrees Below 65°F.	Most Prevalent		Second Prevalent		Average Speed	Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative	
		Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour					24- Hour	Noon
Jan.....	1,519	SW.	33	W.	22	12.4	—	98	27	1.7	68	64
Feb.....	1,271	SW.	29	W.	20	11.1	—	124	28	1.7	74	70
Mar.....	1,122	SW.	25	W.	18	11.2	—	162	25	2.6	67	58
Apr.....	699	SW.	24	W.	20	11.5	1	211	17	3.7	58	48
May.....	440	SW.	27	W.	16	10.6	1	255	4	5.3	59	47
June.....	233	SW.	25	W.	16	8.5	2	281	—	7.1	66	56
July.....	36	SW.	23	W.	17	7.0	2	341	—	8.4	56	45
Aug.....	85	SW.	21	W.	17	6.9	1	301	—	7.7	55	45
Sept.....	372	SW.	27	W.	18	7.6	1	208	2	6.3	62	53
Oct.....	666	SW.	32	W.	17	10.2	—	165	9	4.7	63	52
Nov.....	1,066	SW.	35	W.	21	11.7	—	116	25	2.7	70	63
Dec.....	1,364	SW.	33	W.	22	12.4	—	92	27	2.3	72	64
Year....	8,873	SW.	28	W.	19	10.1	4	2,354	164	4.5	64	55

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost May 24; of first autumn frost Sept. 15.

# 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

FORT NELSON, B.C.—58°50'N. 122°35'W. 1,230 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION				
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)
				Average		Record						
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days	
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	
Jan.....	-5.3	2.0	-12.7	28	-39	45	-61	—	—	8.2	6	0.82
Feb.....	1.6	11.3	-8.1	43	-37	57	-55	0.02	1	10.5	8	1.07
Mar.....	18.0	30.6	5.3	54	-24	62	-34	--	1	6.4	7	0.64
Apr.....	37.1	49.5	24.7	67	—	76	-19	0.17	2	3.8	2	0.55
May.....	50.2	62.0	38.3	80	27	89	24	1.37	8	0.7	1	1.44
June.....	57.7	69.4	46.0	82	35	88	31	2.47	11	—	—	2.47
July.....	62.1	74.1	50.2	88	40	98	38	2.38	9	—	—	2.38
Aug.....	59.3	71.9	46.7	86	36	93	29	1.33	8	—	—	1.33
Sept.....	49.2	60.9	37.6	79	24	91	18	1.16	7	1.0	1	1.26
Oct.....	35.9	44.8	27.1	67	11	78	-7	0.53	4	5.9	4	1.12
Nov.....	7.8	14.1	1.4	37	-21	53	-32	--	1	13.8	10	1.38
Dec.....	-4.1	2.3	-10.6	29	-34	46	-54	—	—	9.5	9	0.95
Year....	30.8	41.1	20.5	90	-45	98	-61	9.43	49	59.8	47	15.41
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	FROST <sup>2</sup>	HUMIDITY		
		Most Prevalent		Second Prevalent		Average Speed				Water- Vapour (parts per 1,000)	Relative	
		Direction	Per- cent- age	Direction	Per- cent- age	Miles per Hour	Days with	Hours of	Days with		24- Hour	Noon
		No.					No.	No.	No.		p.c.	p.c.
		Day- Degrees Below 65°F.										
Jan.....	2,179	S.	40	N.	22	3.3	—	..	31	0.6	86	85
Feb.....	1,829	S.	26	N.	25	4.4	—	..	28	0.6	86	77
Mar.....	1,457	N.	25	S.	25	5.4	—	..	31	1.6	67	49
Apr.....	837	N.	22	S.	18	5.9	—	..	26	2.7	60	45
May.....	459	N.	24	S.	14	6.5	—	..	7	4.4	55	38
June.....	168	N.	20	S.	17	5.8	4	..	—	7.1	66	46
July.....	108	S.	22	NW.	20	5.6	2	..	—	8.3	70	52
Aug.....	314	S.	25	NW.	21	5.6	2	..	—	7.7	68	46
Sept.....	474	S.	27	N.	17	5.3	—	..	5	5.6	76	56
Oct.....	902	S.	33	N.	14	4.7	—	..	24	3.7	78	65
Nov.....	1,716	S.	32	N.	20	3.6	—	..	30	1.1	84	84
Dec.....	2,142	S.	36	N.	20	3.5	—	..	31	0.6	88	90
Year....	12,585	S.	26	N.	20	5.0	8	..	213	3.7	74	61

<sup>1</sup> Less than 5 days in 10 years.

<sup>2</sup> Average date of last spring frost May 25; of first autumn frost Sept. 5.

**1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.**

NOTE.—For full explanation of terms used and observing methods see p. 34.

PENTICTON, B.C.—49°27'N. 119°34'W. 1,121 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION				
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)
				Average		Record						
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days	
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	in.
Jan.....	26.8	32.3	21.2	46	6	57	−12	0.26	3	7.2	8	0.98
Feb.....	30.4	37.5	23.4	52	7	64	−12	0.28	4	4.5	7	0.73
Mar.....	39.6	49.6	29.5	63	18	71	5	0.40	4	2.5	1	0.65
Apr.....	48.1	61.0	35.2	76	24	87	16	0.68	9	--	1	0.68
May.....	56.2	70.0	42.3	86	31	94	27	1.07	10	—	—	1.07
June.....	63.1	77.0	49.2	93	40	100	32	1.23	9	—	—	1.23
July.....	68.3	83.5	53.1	97	45	105	38	0.79	7	—	—	0.79
Aug.....	66.3	81.0	51.6	93	42	97	32	0.84	7	—	—	0.84
Sept.....	57.9	70.8	45.0	85	33	94	22	0.99	7	—	—	0.99
Oct.....	48.0	58.6	37.5	73	25	82	12	0.81	8	0.2	1	0.83
Nov.....	37.9	44.4	31.4	56	18	69	1	0.68	8	2.5	2	0.93
Dec.....	30.4	35.1	25.6	50	8	60	−8	0.42	5	7.1	4	1.13
<b>Year....</b>	<b>47.8</b>	<b>58.4</b>	<b>37.1</b>	<b>98</b>	<b>−2</b>	<b>105</b>	<b>−12</b>	<b>8.45</b>	<b>81</b>	<b>24.0</b>	<b>22</b>	<b>10.85</b>
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE <sup>2</sup>	FROST <sup>3</sup>	HUMIDITY		
	Day- Degrees Below 65°F.	Most Prevalent		Second Prevalent		Average Speed	Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative	
		Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour					24- Hour	Noon
		No.									p.c.	p.c.
Jan.....	1,184	S.	53	N.	8	11.3	—	51	26	2.6	84	80
Feb.....	999	S.	34	N.	14	10.0	—	94	24	3.3	80	72
Mar.....	787	S.	31	N.	20	9.5	1	142	20	3.1	64	50
Apr.....	507	S.	22	N.	19	6.4	1	196	9	4.3	61	44
May.....	273	N.	31	S.	16	6.4	1	241	1	5.9	63	44
June.....	104	N.	30	S.	12	5.2	2	246	—	7.6	65	47
July.....	27	N.	37	NW.	12	6.3	1	322	—	8.9	58	40
Aug.....	41	N.	38	NW.	11	5.4	2	279	—	8.7	60	44
Sept.....	213	N.	26	S.	15	6.0	1	202	1	6.9	66	49
Oct.....	527	S.	25	N.	19	6.5	1	146	5	5.7	76	64
Nov.....	813	S.	35	N.	10	9.5	1	57	18	4.0	81	78
Dec.....	1,073	S.	44	SE.	8	10.4	1	41	22	3.1	83	80
<b>Year....</b>	<b>6,548</b>	<b>S.</b>	<b>26</b>	<b>N.</b>	<b>21</b>	<b>7.7</b>	<b>6</b>	<b>2,017</b>	<b>125</b>	<b>5.3</b>	<b>70</b>	<b>58</b>

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Sunshine data for Summerland, B.C.<sup>3</sup> Average date of last

spring frost May 7; of first autumn frost Oct. 3.

## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

PRINCE GEORGE, B.C.—53°53'N. 122°40'W. 2,218 FEET ABOVE SEA

	TEMPERATURE								PRECIPITATION				
	Average Daily			Extremes				Rain		Snow		Total Pre- cipitation (water)	
				Average		Record							
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days		
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.		in.
Jan.....	12.9	22.9	2.9	44	—33	54	—57	0.19	3	16.2	11	1.81	
Feb.....	18.4	30.6	6.2	49	—27	58	—52	0.20	3	10.1	10	1.21	
Mar.....	29.8	41.6	17.9	57	—8	68	—35	0.63	8	8.1	6	1.44	
Apr.....	40.4	54.2	26.6	72	11	86	—13	0.78	11	0.6	1	0.84	
May.....	49.2	64.1	34.2	81	22	95	12	1.34	11	—	1	1.34	
June.....	56.2	70.5	41.8	85	30	93	24	2.06	15	—	1	2.06	
July.....	59.6	74.7	44.4	90	34	102	28	1.63	15	—	—	1.63	
Aug.....	58.8	74.5	43.0	88	32	96	25	1.94	14	—	—	1.94	
Sept.....	50.2	64.6	35.8	80	23	92	6	1.98	13	0.2	1	2.00	
Oct.....	41.1	52.2	30.0	69	14	84	—4	1.82	16	1.7	1	1.99	
Nov.....	29.4	37.5	21.2	53	—3	62	—28	0.87	9	10.0	6	1.87	
Dec.....	16.5	24.6	8.4	45	—23	55	—56	0.27	5	15.8	9	1.85	
Year....	38.5	51.0	26.0	91	—40	102	—57	13.71	123	62.7	43	19.98	
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	FROST <sup>2</sup>	HUMIDITY			
	Day- Degrees Below 65°F.	Most Prevalent		Second Prevalent		Average Speed	Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative		
		Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour					24- Hour	Noon	
											p.c.	p.c.	
	No.						No.	No.	No.				
Jan.....	1,615	S.	32	N.	28	4.5	1	60	29	2.0	89	86	
Feb.....	1,345	N.	38	S.	25	3.8	1	90	28	2.3	86	77	
Mar.....	1,091	S.	37	N.	24	5.0	—	134	28	2.9	72	59	
Apr.....	738	S.	31	N.	23	4.4	1	187	20	3.7	67	49	
May.....	490	S.	35	N.	20	4.3	1	232	9	5.0	61	41	
June.....	255	S.	34	N.	17	3.6	2	232	1	7.0	72	55	
July.....	228	S.	36	W.	17	3.3	2	263	—	8.0	73	52	
Aug.....	253	S.	39	W.	15	3.2	1	250	1	7.7	72	48	
Sept.....	444	S.	37	N.	16	3.3	1	158	4	6.3	77	58	
Oct.....	741	S.	41	N.	16	4.5	1	99	17	4.7	81	68	
Nov.....	1,068	S.	34	N.	24	4.7	1	55	25	2.7	89	86	
Dec.....	1,504	S.	32	N.	30	4.3	1	39	29	2.3	92	89	
Year....	9,772	S.	34	N.	22	4.1	7	1,799	191	4.6	78	64	

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost June 13; of first autumn frost Aug. 22.



## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

PRINCE RUPERT, B.C.—54°17'N. 130°23'W. 170 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION				
	Average Daily			Extremes				Rain		Snow		Total Pre- cipitation (water)
				Average		Record						
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days	
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	
Jan.....	34.9	39.4	30.3	50	14	62	-6	8.52	18	12.4	2	
Feb.....	36.3	41.7	30.8	52	18	66	2	6.87	12	7.0	3	7.57
Mar.....	38.9	44.6	33.3	55	23	68	11	7.57	18	8.6	3	8.43
Apr.....	43.5	50.2	36.7	62	29	71	22	6.34	19	3.3	1	6.67
May.....	48.2	55.4	41.1	70	34	84	30	5.30	18	--	1	5.30
June.....	53.1	60.1	46.1	73	40	88	36	4.05	14	--	--	4.05
July.....	55.9	62.4	49.4	74	44	87	40	4.76	16	--	--	4.76
Aug.....	57.6	64.4	50.7	76	44	86	40	5.15	16	--	--	5.15
Sept.....	53.6	60.3	46.9	73	39	81	30	7.72	17	--	--	7.72
Oct.....	47.4	52.9	41.8	63	32	71	22	12.21	23	0.1	1	12.22
Nov.....	41.6	46.3	36.9	57	27	66	14	12.06	22	1.9	1	12.25
Dec.....	36.2	40.5	31.9	52	17	63	5	10.55	22	7.3	2	11.28
Year....	45.6	51.5	39.7	80	11	88	-6	91.10	215	40.6	11	95.16
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	Frost <sup>2</sup>	HUMIDITY		
	Day- Degrees Below 65°F.	Most Prevalent		Second Prevalent		Average Speed	Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative	
		Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour					24- Hour	Noon
		No.									p.c.	p.c.
Jan.....	933	SE.	42	N.	13	8.4	--	40	10	4.1	80	78
Feb.....	831	SE.	40	N.	15	7.3	--	55	14	4.1	82	75
Mar.....	809	SE.	42	N.	16	7.4	--	81	13	4.1	80	73
Apr.....	645	SE.	40	NW.	12	6.5	--	106	2	4.9	80	71
May.....	521	SE.	35	NW.	12	5.0	--	130	1	6.0	80	69
June.....	323	SE.	26	NW.	12	3.7	1	135	--	7.4	84	73
July.....	270	SE.	27	NW.	11	3.5	1	142	--	8.3	87	75
Aug.....	280	SE.	30	S.	12	3.7	1	132	--	8.7	88	77
Sept.....	342	SE.	31	N.	13	4.6	1	101	--	7.6	86	76
Oct.....	546	SE.	47	N.	13	7.3	1	57	1	6.3	84	80
Nov.....	702	SE.	44	N.	13	8.5	1	40	6	4.6	83	80
Dec.....	893	SE.	44	N.	16	8.4	1	34	14	4.1	85	85
Year....	7,095	SE.	37	N.	13	6.2	1	1,053	59	5.8	83	76

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost Apr. 20; of first autumn frost Oct. 31.

## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

VANCOUVER, B.C.—49°11'N. 123°10'W. 22 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION				
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)
				Average		Record						
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days	
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	in.
Jan.....	36.2	40.3	32.1	50	17	59	2	7.42	18	11.5	4	8.57
Feb.....	38.7	44.0	33.4	52	21	61	8	5.15	15	6.4	4	5.79
Mar.....	43.1	49.7	36.4	59	28	68	15	4.76	17	2.7	2	5.03
Apr.....	48.4	56.6	40.1	68	31	79	27	3.31	14	0.3	1	3.34
May.....	54.5	63.4	45.6	75	37	83	33	2.84	12	—	—	2.84
June.....	59.6	68.7	50.4	81	43	92	35	2.45	11	—	—	2.45
July.....	63.7	73.7	53.6	84	47	91	40	1.22	7	—	—	1.22
Aug.....	62.9	72.5	53.3	83	46	92	39	1.69	8	—	—	1.69
Sept.....	57.2	65.5	48.9	76	40	85	30	3.63	9	—	—	3.63
Oct.....	50.2	56.4	44.0	67	34	77	21	5.77	16	0.1	1	5.78
Nov.....	43.1	47.7	38.5	57	27	74	10	8.07	19	2.1	1	8.28
Dec.....	38.6	42.5	34.7	52	22	60	8	8.19	22	5.7	1	8.76
Year....	48.7	56.8	42.6	86	13	92	2	54.50	168	28.8	12	57.38
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	FROST <sup>2</sup>	HUMIDITY		
	Day- Degrees Below 65°F.	Most Prevalent		Second Prevalent		Average Speed	Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative	
		Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour					24- Hour	Noon
	No.						No.	No.	No.		p.c.	p.c.
Jan.....	893	E.	39	SE.	19	3.7	1	48	10	4.4	89	85
Feb.....	760	E.	37	SE.	18	4.0	1	82	12	4.6	85	78
Mar.....	682	E.	30	NE.	17	4.4	1	129	6	4.9	80	70
Apr.....	498	E.	29	SE.	15	4.5	1	178	1	5.9	78	67
May.....	326	E.	26	SE.	17	4.3	1	232	—	7.0	76	63
June.....	163	E.	25	SE.	22	4.0	1	226	—	8.1	76	65
July.....	72	E.	23	SE.	22	3.8	1	287	—	9.6	76	62
Aug.....	103	E.	25	SE.	21	3.4	1	268	—	9.6	77	62
Sept.....	234	E.	26	NW.	16	3.4	1	178	—	8.6	82	72
Oct.....	459	E.	30	NE.	15	3.3	1	112	—	7.0	86	80
Nov.....	657	E.	36	SE.	17	3.4	1	53	8	5.3	88	84
Dec.....	818	E.	40	SE.	18	4.1	1	39	10	4.6	90	88
Year....	5,665	E.	30	SE.	18	3.9	5	1,832	47	6.6	82	73

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost Apr. 3; of first autumn frost Nov. 4.

## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

VICTORIA, B.C.—48°24'N. 123°19'W. 228 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION				
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)
				Average		Record						
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days	
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	in.
Jan.....	38.7	42.5	34.9	52	24	56	—2	3.92	16	5.7	2	4.49
Feb.....	40.4	45.1	35.7	52	27	60	5	2.57	13	4.6	2	3.03
Mar.....	44.0	50.0	38.0	59	32	69	17	2.18	15	1.0	1	2.28
Apr.....	48.2	55.3	41.2	67	35	75	24	1.18	10	—	1	1.18
May.....	53.2	60.8	45.5	73	42	84	30	0.96	10	—	—	0.96
June.....	57.1	65.1	49.1	79	45	95	36	0.85	8	—	—	0.85
July.....	60.0	68.7	51.2	83	48	95	37	0.44	6	—	—	0.44
Aug.....	59.9	68.4	51.4	82	47	91	37	0.61	5	—	—	0.61
Sept.....	56.2	63.9	48.5	77	43	89	30	1.53	8	—	—	1.53
Oct.....	50.6	56.3	44.9	67	38	77	22	2.81	13	—	1	2.81
Nov.....	44.6	48.8	40.3	57	33	63	14	4.20	17	0.8	1	4.28
Dec.....	41.2	44.9	37.6	53	27	59	8	4.54	20	1.3	1	4.67
Year....	49.5	55.8	43.2	86	20	95	—2	25.79	141	13.4	5	27.13
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	FROST <sup>2</sup>	HUMIDITY		
	Day- Degrees Below 65°F.	Most Prevalent		Second Prevalent		Average Speed	Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative	
		Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour					24- Hour	Noon
No.						No.	No.	No.		p.c.	p.c.	
Jan.....	815	N.	30	NE.	18	12.4	—	69	3	4.2	86	82
Feb.....	711	N.	31	NE.	15	11.6	1	97	6	4.4	83	78
Mar.....	651	W.	24	N.	19	11.6	1	154	2	4.8	80	72
Apr.....	504	W.	28	SW.	22	11.7	1	206	1	5.5	77	70
May.....	366	W.	30	SW.	29	12.0	1	271	—	6.5	75	67
June.....	209	SW.	34	W.	33	12.3	1	280	—	7.5	76	67
July.....	135	SW.	40	W.	29	11.9	1	335	—	8.6	78	68
Aug.....	167	SW.	37	W.	26	10.6	1	304	—	8.7	80	71
Sept.....	264	W.	24	SW.	21	8.7	1	209	—	7.8	81	71
Oct.....	446	N.	24	W.	17	8.9	—	136	—	6.8	86	78
Nov.....	462	N.	31	NE.	15	10.7	1	78	1	5.5	88	82
Dec.....	738	N.	28	SE.	14	12.8	1	68	2	4.7	87	83
Year....	5,468	W.	22	SW.	20	11.3	2	2,207	14	6.2	81	74

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost Mar. 18; of first autumn frost Nov. 27.

## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.

NOTE.—For full explanation of terms used and observing methods see p. 34.

DAWSON, Y.T.—64°04'N. 139°29'W. 1,062 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION				
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)
				Average		Record						
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days	
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	
Jan.....	-21.0	-14.5	-27.5	15	-52	35	-68	—	—	8.7	8	0.8
Feb.....	-12.1	-4.3	-19.8	24	-45	48	-73	—	—	7.0	6	0.70
Mar.....	4.4	16.3	-7.6	40	-34	52	-50	0.01	1	5.1	8	0.52
Apr.....	28.6	41.3	15.8	57	-9	69	-33	0.16	2	3.5	2	0.51
May.....	46.3	58.9	33.6	74	21	85	9	0.95	9	0.6	1	1.01
June.....	56.8	70.5	43.1	83	32	91	25	1.17	11	0.1	1	1.18
July.....	59.6	72.7	46.5	84	36	95	29	1.53	13	—	—	1.53
Aug.....	54.6	66.9	42.2	80	30	88	17	1.55	14	--	1	1.55
Sept.....	42.1	52.5	31.7	68	18	79	8	1.23	10	1.8	1	1.41
Oct.....	26.0	32.6	19.4	52	-1	68	-23	0.38	4	7.9	7	1.17
Nov.....	1.4	7.2	-4.4	33	-30	52	-49	—	—	11.3	11	1.13
Dec.....	-13.7	-7.7	-19.6	21	-43	55	-63	0.01	1	10.2	10	1.03
Year....	22.8	32.7	12.8	86	-55	95	-73	6.99	63	56.2	53	12.61
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE <sup>2</sup>	Frost <sup>3</sup>	HUMIDITY		
	Day- Degrees Below 65°F.	Most Prevalent		Second Prevalent		Average Speed	Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative	
		Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour					24- Hour	Noon
		No.									p.c.	p.c.
	Jan.....	2,666	S.	36	N.	16	6.4	—	7	31	4	4
Feb.....	2,226	S.	30	N.	17	6.0	—	64	28	4	4	4
Mar.....	1,879	N.	26	S.	22	7.9	—	154	31	4	4	4
Apr.....	1,092	N.	33	S.	17	6.2	—	216	29	4	4	4
May.....	580	N.	30	S.	19	5.8	1	237	13	4.9	67	49
June.....	282	N.	27	S.	18	4.7	1	273	1	7.1	69	52
July.....	131	N.	25	S.	20	4.1	1	267	—	8.7	76	59
Aug.....	430	N.	21	S.	20	4.6	1	201	1	7.1	81	65
Sept.....	687	N.	23	S.	20	4.4	1	115	9	5.1	86	70
Oct.....	1,209	N.	25	S.	24	5.7	—	69	25	4	4	4
Nov.....	1,908	S.	30	N.	22	6.7	—	13	30	4	4	4
Dec.....	2,440	S.	32	N.	21	5.6	—	—	31	4	4	4
Year....	15,530	S.	24	N.	23	5.7	3	1,616	229	...	...	...

<sup>1</sup> Less than 5 days in 10 years. <sup>2</sup> Sunshine data for Swede Creek, Yukon. <sup>3</sup> Average date of last spring frost June 6; of first autumn frost Aug. 19. <sup>4</sup> Humidity readings unobtainable under winter conditions.



**1.—Long-Term Average of Climatic Data for Representative Canadian Stations—con.**

NOTE.—For full explanation of terms used and observing methods see p. 34.

ARCTIC BAY, N.W.T.—73°16'N. 84°17'W. 36 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION							
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)			
				Average		Record									
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days				
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	in.			
Jan.....	-19.6	-12.6	-26.7	11	-43	28	-51	—	—	3.9	6	0.39			
Feb.....	-27.2	-20.1	-34.2	2	-48	36	-57	—	—	2.3	3	0.23			
Mar.....	-17.1	-8.5	-25.7	13	-41	27	-49	—	—	3.9	6	0.39			
Apr.....	-3.9	5.2	-13.1	21	-30	34	-37	—	—	2.7	6	0.27			
May.....	19.0	26.5	11.6	41	-7	51	-14	0.04	1	5.3	6	0.57			
June.....	35.5	41.4	29.5	55	17	63	11	0.28	2	3.5	4	0.63			
July.....	43.3	50.9	35.7	62	30	75	22	0.64	7	0.1	1	0.65			
Aug.....	40.8	46.7	34.9	57	29	64	24	1.30	10	1.6	1	1.46			
Sept.....	30.0	34.1	25.8	45	15	56	9	0.13	2	5.7	7	0.70			
Oct.....	14.4	19.5	9.4	34	-5	44	-12	—	—	7.0	8	0.70			
Nov.....	-6.2	-0.7	-11.7	20	-29	34	-42	—	—	4.3	6	0.43			
Dec.....	-16.8	-10.3	-23.2	11	-37	34	-41	—	—	3.9	5	0.39			
Year....	7.7	14.3	1.1	64	-49	75	-57	2.39	21	44.2	58	6.81			
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	FROST <sup>2</sup>	HUMIDITY					
		Most Prevalent		Second Prevalent		Average Speed				Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative	
														24- Hour	Noon
		Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour	No.	No.	No.	p.c.	p.c.				
Jan.....	3,623	N.	13	S.	12	3.8	—	..	31	3	3	3			
Feb.....	2,582	N.	19	W.	14	3.8	—	..	28	3	3	3			
Mar.....	2,545	NW.	15	S.	14	4.3	—	..	31	3	3	3			
Apr.....	2,067	N.	16	NW.	15	4.0	—	..	30	3	3	3			
May.....	1,426	NW.	31	W.	13	5.9	—	..	31	1.7	83	78			
June.....	885	NW.	42	N.	16	8.3	—	..	20	3.4	77	73			
July.....	673	NW.	44	N.	14	8.7	—	..	8	4.4	79	73			
Aug.....	750	NW.	38	N.	15	7.5	—	..	10	4.4	83	78			
Sept.....	1,050	NW.	29	N.	20	7.2	—	..	27	2.7	83	82			
Oct.....	1,569	NW.	19	S.	16	6.9	—	..	31	1.3	82	79			
Nov.....	2,136	NW.	16	N.	16	7.2	—	..	30	3	3	3			
Dec.....	2,536	N.	19	W.	13	3.4	—	..	31	3	3	3			
Year....	21,842	NW.	23	N.	16	5.9	—	..	308	...	...	...			

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost June 26; of first autumn frost Aug. 10.<sup>3</sup> Humidity readings unobtainable under winter conditions.

## 1.—Long-Term Average of Climatic Data for Representative Canadian Stations—conc.

NOTE.—For full explanation of terms used and observing methods see p. 34.

FORT SIMPSON, N.W.T.—61°52'N. 121°21'W. 415 FEET ABOVE SEA

	TEMPERATURE							PRECIPITATION				
	Average Daily			Extremes				Rain		Snow		Total Pre- cipi- tation (water)
				Average		Record						
	Mean	High	Low	High	Low	High	Low	Inches	Days	Inches	Days	
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	No.	No.	No.	No.	
Jan.....	-18.3	-10.0	-26.6	23	-49	53	-66	—	—	7.2	6	0.72
Feb.....	-10.7	-0.2	-21.2	28	-44	60	-69	—	—	7.0	5	0.70
Mar.....	1.0	12.7	-10.6	40	-34	54	-52	—	—	4.8	8	0.48
Apr.....	26.0	37.6	14.4	61	-14	71	-37	0.12	2	5.8	3	0.70
May.....	44.7	55.9	33.4	76	22	95	-9	0.96	7	4.1	1	1.37
June.....	56.1	67.5	44.7	83	33	95	25	1.46	7	--	1	1.46
July.....	61.7	73.5	49.9	86	39	94	31	1.99	10	—	—	1.99
Aug.....	57.2	68.5	45.9	84	32	93	21	1.46	9	0.1	1	1.47
Sept.....	46.1	56.0	36.1	74	24	86	7	1.24	6	0.7	1	1.31
Oct.....	28.6	35.7	21.4	63	2	87	-18	0.26	3	8.1	5	1.07
Nov.....	4.3	11.2	-2.7	36	-24	54	-41	—	—	8.5	8	0.85
Dec.....	-12.1	-4.4	-19.8	22	-41	45	-64	0.01	1	8.3	8	0.84
Year....	23.7	33.7	13.7	88	-53	95	-69	7.50	44	54.6	44	12.96
	HEAT- ING FACTOR	WIND					THUN- DER	BRIGHT SUN- SHINE	FROST <sup>2</sup>	HUMIDITY		
	Day- Degrees Below 65°F.	Most Prevalent		Second Prevalent		Average Speed	Days with	Hours of	Days with	Water- Vapour (parts per 1,000)	Relative	
		Direc- tion	Per- cent- age	Direc- tion	Per- cent- age	Miles per Hour					24- Hour	Noon
	No.						No.	No.	No.			
Jan.....	2,582	NW.	19	N.	15	5.9	—	..	31	0.3	83	83
Feb.....	2,120	N.	19	NW.	18	6.7	—	..	28	0.3	83	81
Mar.....	1,984	N.	19	NW.	17	6.4	—	..	31	1.0	76	66
Apr.....	1,170	N.	17	SE.	15	6.1	1	..	29	2.1	67	54
May.....	629	SE.	18	N.	15	6.7	1	..	12	4.1	62	46
June.....	307	N.	14	S.	13	6.1	1	..	1	6.0	59	42
July.....	120	NW.	14	N.	12	6.0	1	..	—	7.1	62	43
Aug.....	278	NW.	15	N.	13	6.7	1	..	1	6.6	65	49
Sept.....	567	N.	13	NW.	12	5.9	1	..	8	4.6	71	59
Oct.....	1,097	S.	19	NW.	13	5.7	—	..	24	3.1	82	78
Nov.....	1,821	NW.	17	N.	12	5.9	—	..	30	0.7	87	88
Dec.....	2,390	NW.	20	W.	14	5.4	—	..	31	0.3	80	80
Year....	15,065	NW.	15	N.	14	6.1	3	..	226	3.0	73	64

<sup>1</sup> Less than 5 days in 10 years.<sup>2</sup> Average date of last spring frost June 5; of first autumn frost Aug. 28.

## Section 2.—Meteorology

See list at the front of this edition, under the heading "Climate and Meteorology", for special material published in previous editions of the Year Book.

## Section 3.—Standard Time and Time Zones

In former times, when transportation was slow and people for the most part lived within their own communities, it was natural enough that each community should have its own local time based on sun time. The difference in sun time as between communities is, of course, determined by the difference in their longitude. Inasmuch as the sun appears to travel the 360 degrees around the world in 24 hours or 1,440 minutes, a community that is precisely one degree of longitude west of another community in the same latitude naturally has the sun rise and set four minutes later than it rises and sets in the community that is one degree farther east. Local time, in so far as it was accurately kept, tended therefore to conform to "sun time" and noon came when the sun reached its highest point.

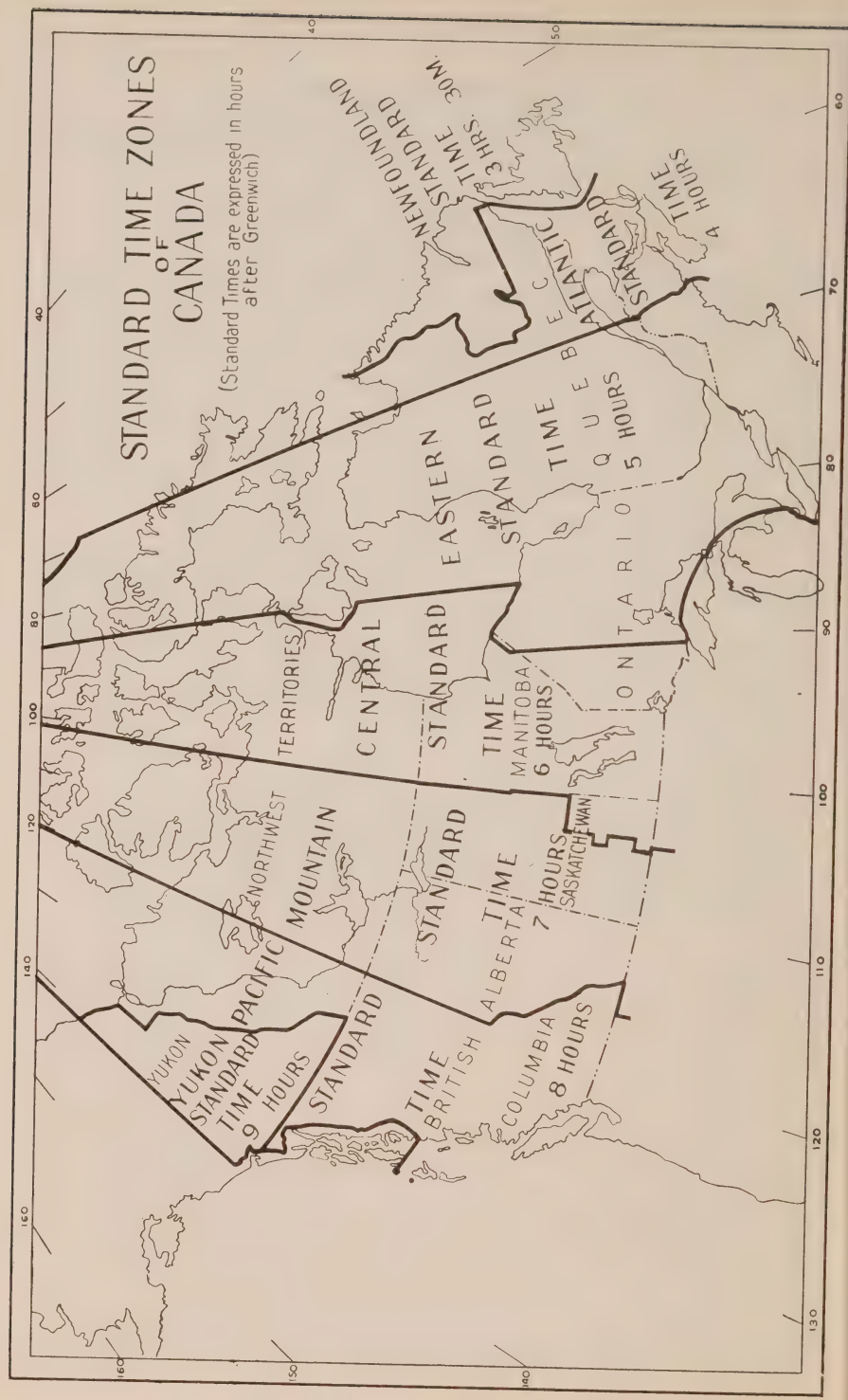
The advent of more rapid transportation, however, made these local times extremely inconvenient for travellers. In particular it was almost impossible to work out railway time tables on the basis of the local times of each community. Consequently in Great Britain, where the differences of longitude are comparatively small, the problem was solved in 1880 by placing the whole country on the time of Greenwich Observatory, while Irish time was standardized at twenty-five minutes behind Greenwich time, being the time of Dublin.

From 1878, Sir Sandford Fleming advocated the general use of "standard time zones" and this suggestion was adopted at a world conference held at Washington in 1884. Sir Sandford Fleming proposed that the number of times in the world should be reduced to twenty-four, each time zone to extend over one twenty-fourth of the surface of the earth and to include all the territory between two meridians, fifteen degrees of longitude apart. Standard time would be Greenwich time, all other time zones being a definite number of hours either in advance of or behind Greenwich. These proposals were very generally accepted. Mid-European and East European times are to-day respectively one hour and two hours in advance of Greenwich. The American Continent, however, extends over such an enormous distance from east to west that it was necessary to establish a number of time zones. Atlantic, Eastern, Central, Mountain, Pacific, Yukon and Alaska time zones have times, respectively, four, five, six, seven, eight, nine and ten hours behind Greenwich. The differences are usually expressed in intervals of so many hours' difference from Greenwich. However, some localities of smaller area have times which are not an exact hour's difference from Greenwich, Newfoundland and Labrador, for example, having a time three hours and thirty minutes behind Greenwich. This difference of three hours and thirty minutes would correspond to west longitude 52°30' which is nearly the longitude of St. John's, Newfoundland.

In Canada, besides the Newfoundland time zone, there are six other time zones. Atlantic standard time, which is the local time at the 60th meridian running near Sydney, N.S., and is four hours behind Greenwich, is used in the Maritime Provinces

# STANDARD TIME ZONES OF CANADA

(Standard Times are expressed in hours  
after Greenwich)





and those parts of Quebec and the Northwest Territories east of the 68th meridian of west longitude. Eastern standard time, which is the local time at the 75th meridian running near Cornwall, Ont., and is thus five hours behind Greenwich, is used in Quebec west of the 68th meridian, in Ontario east of the 90th meridian and in the Northwest Territories between the 68th and 85th meridians. Central standard time, which is the local time at the 90th meridian, is six hours behind Greenwich and is used in Ontario west of the 90th meridian, in Manitoba, in the Northwest Territories between the 85th and the 102nd meridians and in the southeasterly part of Saskatchewan. Mountain time, which is the local time at the 105th meridian running near Regina, is seven hours behind Greenwich and is used throughout Saskatchewan except in the southeasterly part, throughout Alberta and in that part of the Northwest Territories between the 102nd and 120th meridians. Pacific standard time, which is the local time of the 120th meridian running near Kamloops, British Columbia, is eight hours behind Greenwich and is used throughout British Columbia and in that part of the Northwest Territories lying west of the 120th meridian. Yukon standard time, which is the local time at the 135th meridian, running near Whitehorse, Yukon, is nine hours behind Greenwich and is used throughout the Yukon Territory. Thus throughout Canada there are no fewer than seven different standard times roughly corresponding with the 88 degrees of longitude between St. John's, Newfoundland, and the Alaskan boundary.

Some municipalities adopt the time used by the local railways, which in some cases differs from the standard, and there are also villages that adopt such time as seems best to suit their convenience, but, in general, the legal boundaries of the different time zones are actually in use. The boundaries of the standard time zones in Canada and Newfoundland are shown in the map on p. 72.

**Daylight Saving Time.**—For some years before the First World War there was active propaganda, particularly in the cities, for the use of an earlier time, usually referred to as "daylight saving time", one hour ahead of standard time, during the summer months. It was considered that both from the economic and from the health point of view, the people, particularly in industrial towns and cities, would gain by beginning work earlier in the morning and having a longer period of sunlight at their disposal for recreation after the work of the day was over. The United Kingdom adopted daylight saving time in 1916. The United States and Canada followed suit in 1918, but the Canadian Act lapsed at the end of that year. Since that date, however, various towns and cities have adopted daylight saving by-laws for varying periods in the summer months.

**Legal Authority for the Time Zones.**—All regulations made in Canada concerning standard time, except the Daylight Saving Act of 1918, have been passed by the Provincial Legislatures and the Northwest Territories Council. This legislation, besides determining the boundaries of zones, regulates such matters as the times of coming into effect or expiration of Acts, ordinances, contracts and agreements, times of opening and closing registration offices, law courts, post offices and other public offices, times of open or close seasons for game, times of opening and closing business houses and places of amusement.

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## PART VII.—ASTROPHYSICS

Major astronomical work is carried on by three Canadian institutions; the Dominion Observatory, Ottawa, Ont., the Dominion Astrophysical Observatory, Victoria, B.C. (operated by the Mines, Forests and Scientific Services Branch, Department of Mines and Resources), and the David Dunlap Observatory, which is associated with the University of Toronto. Of the two Government institutions the Dominion Observatory at Ottawa has specialized mainly in the astronomy of position in solar physics and in various branches of geophysical work, while the major effort in astrophysics has been concentrated at the Dominion Astrophysical Observatory at Victoria, B.C. The David Dunlap Observatory is a newer institution founded in 1935 with very fine astrophysical equipment of a kind similar to that in use at Victoria. It not only performs the function of a privately financed and administrated research institution but is also the nucleus of a university department of astronomy. A special article dealing specifically with the work of the Dominion Astrophysical Observatory at Victoria, B.C., appears at pp. 63-71 of the 1948-49 edition of the Year Book.

# CHAPTER II.—HISTORY AND CHRONOLOGY

## CONSPECTUS

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## PART I.—HISTORY

### Section 1.—Outlines of Canadian History

See list at front of this edition for material under this heading published in previous editions of the Year Book.

### Section 2.—A Bibliography of Canadian History

See list at front of this edition for material under this heading published in previous editions of the Year Book.

### Section 3.—Historical Records

See list at front of this edition for material under this heading published in previous editions of the Year Book.

## PART II.—CHRONOLOGY

*NOTE.—The Ministries, dates of elections and lengths of sessions of Dominion Parliaments are given in Tables 2 and 5, respectively, of Chapter III. Changes in Provincial Legislatures and Ministries from Confederation to 1925 are given at pp. 75-84 of the 1924 Year Book, from 1924 to 1937 at pp. 110-118 of the 1938 Year Book and from 1938-49 at pp. 117-130 of this edition. References to these matters have, therefore, been deleted from the Chronology. References to incidents in Newfoundland history have been added.*

- |  |   |
|--|---|
| 1497. June 24, Eastern coast of North America discovered by John Cabot in the service of King Henry VII of England.                      | 1603. June 22, Champlain's first landing in Canada, at Quebec.  |
| 1498. Cabot discovered Hudson Strait.  | 1604. De Monts settled colony on island in the St. Croix River.   |
| 1501. Gaspar Corte Real visited Newfoundland and Labrador.   | 1605. Founding of Port Royal (Annapolis, N.S.).   |
| 1524. Verrazano explored the coasts of Nova Scotia and Newfoundland. French claims to Newfoundland were based on his exploration.        | 1608. Champlain's second visit. July 3, Founding of Quebec.   |
| 1534. July 24, Jacques Cartier, on his first voyage, erected a cross at Gaspé, claiming the land for the King of France.                 | 1609. July, Champlain discovered Lake Champlain.  |
| 1535. Cartier, on his second voyage, explored the St. Lawrence to Stadacona (Quebec) (Sept. 14), and Hochelaga (Montreal) (Oct. 2).      | 1610-11. Hudson explored Hudson Bay and James Bay.  |
| 1541. Cartier's third voyage. He planted wheat, cabbages, turnips, and lettuce near Cap Rouge River.                                     | 1611. Brûlé explored the Ottawa River. St. John's, Newfoundland, founded.   |
| 1542-43. De Roberval and his party wintered at Cap Rouge, and were rescued by Cartier on his fourth voyage.                              | 1612. Oct. 15, Champlain made Lieutenant-General of New France.   |
| 1583. Sir Humphrey Gilbert proclaimed English sovereignty over Newfoundland. Certain coastal fishing rights were reserved to the French. | 1613. June, Champlain ascended the Ottawa.  |
| 1592. Straits of Juan de Fuca discovered by de Fuca.   | 1615. Champlain explored Lakes Nipissing, Huron, and Ontario (discovered by Brûlé and Le Caron).  |
|  | 1616. First schools opened at Tadoussac and on the site of the city of Three Rivers.  |
|  | 1617. Arrival at Quebec of the first colonist, Louis Hébert and his family.   |
|  | 1621. Code of laws issued and register of births, deaths, and marriages opened in Quebec. Nova Scotia granted to Sir William Alexander by King James I. |
|  | 1622. Lake Superior discovered by Brûlé.  |
|  | 1623. First British settlement of Nova Scotia.  |

1627. New France and Acadia granted to the Company of One Hundred Associates.
1628. Port Royal taken by Sir David Kirke.
1629. Apr. 24, Treaty of Susa between France and England. July 20, Quebec taken by Sir David Kirke.
1632. Mar. 29, Canada and Acadia restored to France by the Treaty of St. Germain-en-Laye.
1633. May 23, Champlain made first Governor of New France.
1634. July 4, Founding of Three Rivers.
- 1634-35. Exploration of the Great Lakes by Nicolet.
1635. Dec. 25, Death of Champlain at Quebec. Founding of the first college at Quebec.
1638. June 11, First recorded earthquake in Canada.
1640. Discovery of Lake Erie by Chaumonot and Brébeuf.
1641. Resident population of New France, 240.
1642. May 17, Founding of Ville-Marie (Montreal) by Maisonneuve.
1646. Exploration of the Saguenay by Dablon.
1647. July 16, Lake St. John discovered by de Quen.
1648. Mar. 5, Council of New France created.
1654. August, Acadia taken by an expedition from New England. Population of Newfoundland estimated at 1,750 persons.
1655. Nov. 3, Acadia restored to France by Treaty of Westminster.
1656. Acadia granted by Cromwell to La Tour, Temple, and Crowne.
1661. King Louis XIV of France annexed the southwest coast of Newfoundland, appointed a governor and built a fort at Placentia.
1663. Company of One Hundred Associates dissolved. April, Sovereign Council of New France established.
1665. Mar. 23, Talon appointed Intendant.
1666. Feb.-Mar. First Census: population of New France, 3,215.
1667. July 21, Acadia restored to France by the Treaty of Breda.
1668. Mission at Sault Ste. Marie founded by Marquette.
1670. May 2, Charter of the Hudson's Bay Company granted.
1671. Population of Acadia, 392.
1672. Apr. 6, Comte de Frontenac appointed Governor.
1673. June 13, Cataragui (Kingston) founded.
1678. Niagara Falls visited by Hennepin.
1679. Ship *Le Griffon* built on the Niagara River by La Salle. First vessel to sail the Great Lakes.
1680. Population of Newfoundland, 2,181.
1681. Population of New France, 9,677.
1682. Frontenac recalled. De la Barre appointed Governor.
1685. First issue of card money.
1687. Mar. 18, La Salle assassinated.
1689. June 7, Frontenac reappointed Governor.
1690. May 21, Sir William Phips captured Port Royal but was repulsed in an attack on Quebec (Oct. 16-21).
1692. Population of New France, 12,431. Oct. 22, Defence of Verchères against Indians by Madeleine de Verchères.
1693. Population of Acadia, 1,018.
1697. Sept. 20, By the Treaty of Ryswick, places taken during the war were mutually restored. D'Iberville defeated the Hudson's Bay Company's ships on Hudson Bay.
1698. Nov. 28, Death of Frontenac.
1701. Population of Acadia (north part of peninsula), 1,134. Newfoundland, British population: 3,575.
1702. Newfoundland French population: 466.
1703. June 16, Sovereign Council of New France became Superior Council.
1709. British invasion of Canada.
1710. Oct. 13, Port Royal taken by Nicholson.
1713. Apr. 11, Treaty of Utrecht; French rights in Hudson's Bay Company Territories, Acadia, and Newfoundland relinquished to Great Britain. August, Louisbourg founded by the French. Population of New France, 18,469. British population of Newfoundland, 4,049.
1720. Apr. 25, Governor and Council of Nova Scotia appointed.
1721. June 19, Burning of about one-half of Montreal. Census population of New France, 25,923.
1730. Population of New France, 34,753.
1733. Discovery of Lake Winnipeg by La Vérendrye.
1734. Road opened from Quebec to Montreal.
1737. Iron smelted on banks of St. Maurice.
1743. Jan. 1, The younger La Vérendrye discovered the Rocky Mountains.
1745. June 17, Louisbourg taken by Pepperell and Warren.
1748. Oct. 18, Treaty of Aix-la-Chapelle. Louisbourg restored to France in exchange for Madras, India.
1749. June 21, Founding of Halifax — British immigrants (2,544 persons) brought to Nova Scotia by Governor Cornwallis. Fort Rouillé (Toronto) built.
1750. British population of Newfoundland, 6,900.
1752. Mar. 25, Issue of the *Halifax Gazette*, first newspaper in Canada.
1754. Census population of New France, 55,009.
1755. First post office established at Halifax and direct mail communication with Great Britain. June 16, Surrender of Fort Beauséjour on the Isthmus of Chignecto to the British. Sept. 10, Explosion of the Acadians from Nova Scotia.
1756. Seven Years' War between Great Britain and France began.
1758. July 26, Final capture of Louisbourg by the British. Oct. 7, First meeting of the Legislature of Nova Scotia.
1759. July 25, Fort Niagara taken by the British. July 26, The siege of Quebec. July 31, French victory at Beauport Flats. Sept. 13, Defeat of the French on the Plains of Abraham. Death of Wolfe. Sept. 14, Death of Montcalm. Sept. 18, Surrender of Quebec.
1760. Apr. 28, Victory of the French under Lévis at Ste. Foy. Sept. 8, Surrender of Montreal. Military rule set up in Canada.
1762. First British settlement in New Brunswick.
1763. Feb. 10, Treaty of Paris, by which Canada and its dependencies were ceded to the British. French fishing rights off Newfoundland restored but Spanish rights given to the British. May-July 31, Rising of the Indians under Pontiac and defeat of British at Bloody Run. Oct. 7, Civil government proclaimed. Cape Breton and Ile St. Jean (P.E.I.) annexed to Nova Scotia; Labrador, Anticosti, and Magdalen Islands to Newfoundland. Nov. 21, General James Murray appointed Governor-in-Chief. Population of Newfoundland, 13,112.
1764. Aug. 13, Civil government established. Population of Nova Scotia, 12,998.
1765. Publication of the first book printed in Canada, "Catéchisme du Diocèse de Sens". Population of Canada, 69,810.
1766. July 24, Peace made with Pontiac at Oswego.



1768. Charlottetown, Ile St. Jean (P.E.I.), founded. Apr. 11, Great fire at Montreal. Apr. 12, Sir Guy Carleton (Lord Dorchester) Governor-in-Chief.
1769. Ile St. Jean (P.E.I.) separated from Nova Scotia.
- 1770-72. Hearne's journey to the Coppermine and Slave Rivers and Great Slave Lake.
1774. June 22, The Quebec Act passed.
1775. May 1, The Quebec Act came into force. Outbreak of the American Revolution. Montgomery and Arnold invaded Canada. Nov. 12, Montgomery took Montreal. Dec. 31, Montgomery defeated and killed in an attack on Quebec.
1776. Americans defeated and driven from Canada by Carleton.
1777. Sept. 18, General Frederick Haldimand appointed Governor-in-Chief.
- 1778-81. Capt. James Cook explored Nootka Sound. The northwest coast of America claimed for Great Britain. Settlement of Vancouver Island.
1783. Sept. 3, Treaty of Versailles, recognizing the independence of the United States. Organization of the Northwest Company at Montreal. Kingston (Ont.) and Parrottown (Saint John, N.B.) founded by the United Empire Loyalists.
1784. Nova Scotia divided into two provinces by the creation of New Brunswick with Col. Thomas Carleton as Governor. Cape Breton also separated.
1785. May 18, Incorporation as city of Parrottown (Saint John, N.B.).
1786. Apr. 22, Lord Dorchester again Governor-in-Chief.
1789. Quebec and Halifax Agricultural Societies established.
1790. Spain surrendered her exclusive rights on the Pacific coast.
1791. Dec. 26, The Constitutional Act divided the Province of Quebec into Upper and Lower Canada, each with a lieutenant-governor and legislature. Colonel J. G. Simcoe, appointed first Lieutenant-Governor of Upper Canada. British population of Newfoundland, 16,097.
1792. Sept. 17, First Legislature of Upper Canada opened at Newark (Niagara). Dec. 17, First Legislature of Lower Canada opened at Quebec. Vancouver Island circumnavigated by Capt. Vancouver.
1793. May, Rocky Mountains crossed by (Sir) Alexander Mackenzie, who reached the Pacific Ocean. York (Toronto) founded by Simcoe. July 9, Importation of slaves into Upper Canada forbidden.
1795. Pacific coast of Canada ceded to the British by the Spaniards.
1796. Government of Upper Canada moved from Niagara to York (Toronto).
1798. Ile St. Jean renamed Prince Edward Island: population 4,372.
1803. Settlers sent by Lord Selkirk to Prince Edward Island.
1806. Nov. 22, Issue of *Le Canadien*—first wholly French newspaper. Population—Upper Canada, 70,718; Lower Canada, 250,000; New Brunswick, 35,000; Nova Scotia, 65,000; Prince Edward Island, 9,676.
1807. Simon Fraser explored the Fraser River.
1809. Nov. 4, First Canadian steamer ran from Montreal to Quebec. Labrador 'Coast' which was restored to Canada by the Quebec Act, 1774, re-annexed to Newfoundland.
1811. Lord Selkirk's Red River Settlement founded on land granted by Hudson's Bay Company. Private ownership of land legalized in Newfoundland.
1812. June 18, Declaration of war by the United States. July 12, Americans under Hull crossed the Detroit River. Aug. 16, Detroit surrendered by Hull to Brock. Oct. 13, Defeat of the Americans at Queenston Heights and death of General Brock.
1813. Jan. 22, British victory at Frenchtown. Apr. 27, York (Toronto) taken and burned by the Americans. June 5, British victory at Stoney Creek. June 24, British, warned by Laura Secord, captured an American force at Beaver Dams. Sept. 10, Commodore Perry destroyed the British flotilla on Lake Erie. Oct. 5, Americans under Harrison defeated the British at Moraviantown. Tecumseh killed. Oct. 26, Victory of French-Canadian troops under de Salaberry at Châteauguay. Nov. 11, Defeat of the Americans at Crysler's Farm. British stormed Fort Niagara and burned Buffalo.
1814. Mar. 30, Americans repulsed at La Colle. May 6, Capture of Oswego by the British. July 5, American victory at Chippawa. July 25, British victory at Lundy's Lane. July, British from Nova Scotia invaded and occupied northern Maine. Sept. 11, British defeat at Plattsburg on Lake Champlain. Dec. 24, Treaty of Ghent ended the war. Population—Upper Canada, 95,000; Lower Canada, 335,000.
1815. July 3, Treaty of London regulated trade with the United States. The Red River Settlement destroyed by the Northwest Company but restored by Governor Semple.
1816. June 19, Governor Semple killed. The Red River Settlement again destroyed.
1817. July 13, First Treaty with the Northwest Indians. Lord Selkirk restored the Red River Settlement. Opening of the Bank of Montreal; first note issue Oct. 1. Population of Nova Scotia, 81,351. Rush-Bagot Convention with the United States, limiting naval armament on the Great Lakes, signed. First resident governor of Newfoundland appointed.
1818. Oct. 20, Convention at London regulating North American fisheries.
- 1819-22. Franklin's overland Arctic expedition.
1820. Oct. 16, Cape Breton re-annexed to Nova Scotia.
1821. Mar. 26, The Northwest Company absorbed by the Hudson's Bay Company.
1824. Population of Upper Canada, 150,066; of New Brunswick, 74,176.
1825. Opening of the Lachine Canal. Population of Lower Canada, 479,288; Newfoundland, 55,719.
1826. Founding of Bytown (Ottawa).
1827. Sept. 29, Convention of London relating to the territory west of the Rocky Mountains. Population of Nova Scotia (not including Cape Breton), 123,630.
1829. Nov. 27, First Welland Canal opened.
1831. June 1, The North Magnetic Pole discovered by (Sir) James Ross. Population—Upper Canada, 236,702; Lower Canada, 553,134; Assiniboia, 2,390.
1832. Outbreak of cholera in Canada. May 30, Opening of the Rideau Canal.
1833. Jan. 1, A Representative Assembly established for Newfoundland. Aug. 18, The steamer *Royal William*, built at Quebec, crossed the Atlantic from Picton, N.S., to England.
1834. Feb. 21, The Ninety-Two Resolutions on public grievances passed by the Assembly of Lower Canada.

1836. July 21, Opening of the first railway in Canada from Laprairie to St. Jean, Que. First bank opened in Newfoundland—the Bank of British North America. Population of Newfoundland, 73,705.
1837. Report of the Canada Commissioners. Rebellion in Lower Canada (Papineau) and Upper Canada (W. L. Mackenzie). Nov. 23, Gas lighting first used in Montreal.
1838. Feb. 10, Constitution of Lower Canada suspended and Special Council created. Mar. 30, The Earl of Durham, Governor-in-Chief. Apr. 27, Martial law revoked. June 28, Amnesty to political prisoners proclaimed. Nov. 1, Lord Durham, censured by British Parliament, resigned. Population—Upper Canada, 399,422; Assiniboia, 3,966; Nova Scotia, 202,575.
1839. Feb. 11, Lord Durham's report submitted to Parliament. Oct. 19, Charles Poulett Thomson (Lord Sydenham) arrived in Canada as Governor-in-Chief.
1840. July 23, Passing of the Act of Union. First ship of the Cunard Line arrived at Halifax.
1841. Feb. 10, Union of the two provinces of Upper and Lower Canada as the Province of Canada, with Kingston as capital. Feb. 13, Draper-Ogden Administration. June 13, Meeting of the first united Parliament of Canada. Sept. 19, Death of Lord Sydenham. Population—Upper Canada, 455,688; Prince Edward Island, 47,042.
1842. Aug. 9, The Ashburton Treaty. Sept. 16, Baldwin-Lafontaine Administration.
1843. June 4, Victoria, B.C., founded. Dec. 12, Draper-Viger Administration.
1844. May 10, Seat of government moved from Kingston to Montreal. Population of Lower Canada, 697,084.
1845. May 28 and June 28, Great fires at Quebec. Franklin started on his last Arctic expedition. Population of Newfoundland, 96,295.
1846. June 15, Oregon Boundary Treaty. June 18, Draper-Papineau Administration. First telegraph, operated by Toronto, Hamilton and Niagara Electro-Magnetic Telegraph Co., opened.
1847. May 29, Sherwood-Papineau Administration. Nov. 25, Montreal-Lachine Railway opened.
1848. Mar. 11, Lafontaine-Baldwin Administration. St. Lawrence canals opened to navigation.
1849. Apr. 25, Signing of the Rebellion Losses Act; rioting in Montreal and burning of the Parliament Buildings. Nov. 14, Toronto made the capital. Vancouver Island granted to the Hudson's Bay Company. Population of Assiniboia, 5,391.
1851. Apr. 6, Transfer of the postal system from the British to the Colonial Government of Canada; uniform rate of postage introduced. Apr. 23, Postage stamps issued. Sept. 22, Quebec became the capital of Canada. Oct. 28, Hincks-Morin Administration. Responsible government granted to Prince Edward Island. Population—Upper Canada, 952,004; Lower Canada, 890,261; New Brunswick, 193,800; Nova Scotia, 276,854.
1852. July 8, Great fire at Montreal.
1853. Opening of Grand Trunk Railway from Montreal to Portland.
1854. June 5, Reciprocity Treaty with the United States. Sept. 11, MacNab-Morin Administration. Seigneurial tenure in Lower Canada abolished. Secularization of the clergy reserves.
1855. Responsible Government established for Newfoundland. Jan. 27, MacNab-Taché Administration. Mar. 9, Opening of the Niagara Railway suspension bridge. Oct. 20, Government moved to Toronto.
1856. The Legislative Council of Canada made elective. First meeting of the Legislature of Vancouver Island. Apr. 17, Quebec made the seat of Government. May 24, Taché-J. A. Macdonald Administration. Oct. 27, Opening of the Grand Trunk Railway from Montreal to Toronto. Population of Assiniboia, 6,691.
1857. Nov. 26, J. A. Macdonald-Cartier Administration. Dec. 31, Ottawa chosen by Queen Victoria as future capital of Canada.
1858. February, Discovery of gold in Fraser River Valley, B.C. July 1, Introduction of Canadian decimal currency. Aug. 2, Brown-Dorion Administration. Aug. 5, Completion of the Atlantic cable; Aug. 6, Cartier-J. A. Macdonald Administration. Aug. 20, Colony of British Columbia established. Control of Vancouver Island surrendered by the Hudson's Bay Company.
1859. January, Canadian silver coinage issued. Sept. 24, Government moved to Quebec.
1860. Sept. 1, Laying of the corner-stone of the Parliament Buildings at Ottawa by the Prince of Wales.
1861. Aug. 14, Great flood at Montreal. Population—Upper Canada, 1,396,091; Lower Canada, 1,111,586; New Brunswick, 252,047; Nova Scotia, 330,857; Prince Edward Island, 80,857.
- 1862-63. May 24, Sandfield Macdonald-Sicotte Administration. May 16, Sandfield Macdonald-Dorion Administration.
1864. Mar. 30, Taché-J. A. Macdonald Administration. Conferences on confederation of British North America: Sept. 1, at Charlottetown; Oct. 10-29, at Quebec. Oct. 19, Raid of American Confederates from Canada on St. Albans, Vermont.
1865. Feb. 3, The Canadian Legislature resolved on an address to the Queen praying for union of the provinces of British North America. Aug. 7, Belleau-J. A. Macdonald Administration. Oct. 20, Proclamation fixing the seat of government at Ottawa.
1866. Mar. 17, Termination of the Reciprocity Treaty by the United States. May 31, Fenians from the United States, defeated at Ridgeway (June 2), retreated across the border (June 3). June 8, First meeting at Ottawa of the Canadian Legislature. Nov. 17, Proclamation of the union of Vancouver Island with British Columbia.
1867. Mar. 29, Royal Assent given to the British North America Act. July 1, The Act came into force; Union of the Province of Canada, Nova Scotia and New Brunswick as the Dominion of Canada; Upper and Lower Canada made separate provinces named Ontario and Quebec; Viscount Monck, first Governor General; Sir John A. Macdonald, Prime Minister. Nov. 6, Meeting of the first Dominion Parliament.
1868. July 31, The Rupert's Land Act authorizing the acquisition by the Dominion of the Northwest Territories.
1869. June 22, Act providing for the government of the Northwest Territories. Nov. 19, Deed of surrender to the Crown of the Hudson's Bay Company's territorial rights in the Northwest. Outbreak of the Red River Rebellion under Riel.

1870. May 12, Act to establish the Province of Manitoba. July 15, Northwest Territories transferred to the Dominion and Manitoba admitted into Confederation. Aug. 24, End of Red River Rebellion.
1871. Apr. 2, First Dominion Census: population 3,689,257. Apr. 14, Act establishing uniform currency in the Dominion. May 8, Treaty of Washington signed. July 20, British Columbia entered Confederation. The Dominion undertook to begin construction of a transcontinental railway within two years and to complete it within ten years.
1872. June 14, Canadian Pacific Railway general charter passed by the Dominion Parliament authorizing construction of a transcontinental line by a private company.
1873. May 23, Act establishing the North West Mounted Police (R.C.M.P.). July 1, Prince Edward Island entered Confederation.
1874. May 26, The Dominion Elections Act. Population of Newfoundland and Labrador, 161,374.
1875. Apr. 8, The Northwest Territories Act establishing a Lieutenant-Governor and a Northwest Territories Council. April-May, Work on the Canadian Pacific railway as a Government line begun at Fort William.
1876. June 1, Opening of the Royal Military College, Kingston. June 5, First sitting of the Supreme Court of Canada. July 3, Opening of the Intercolonial Railway from Quebec to Halifax.
1877. October, First wheat exported from Manitoba to the United Kingdom.
1878. July 1, Canada joined the International Postal Union.
1879. May 15, Adoption of a protective tariff ("The National Policy").
1880. May 6, First meeting and exhibition of the Royal Canadian Academy of Arts. May 11, Sir A. T. Galt appointed first Canadian High Commissioner in London. Sept. 1, All British possessions in North America and adjacent islands (except Newfoundland and its dependencies) annexed to Canada by Imperial Order in Council of July 31. Oct. 21, Signing of contract with the present Canadian Pacific Railway Co. for the completion of the Canadian Pacific railway.
1881. Apr. 4, Second Dominion Census: population 4,324,810. May 2, First sod turned for Canadian Pacific railway as a company line.
1882. May 8, Provisional District of Assiniboia, Saskatchewan, Athabaska and Alberta formed. May 23, First meeting of the Royal Society of Canada. Aug. 23, Regina established as seat of government of the Northwest Territories.
1884. Aug. 11, Settlement of the boundary of Ontario and Manitoba. Population of Newfoundland and Labrador, 197,335.
1885. Mar. 26-May 16, Riel's second rebellion in the Northwest. Apr. 24, Engagement at Fish Creek. May 2, Engagement at Cut Knife. May 12, Taking of Batoche. May 16, Surrender of Riel. July 20, The Electoral Franchise Act. Nov. 7, Last spike of Canadian Pacific Railway main line driven at Craigellachie, B.C. Nov. 16, Execution of Riel.
1886. June 13, Vancouver destroyed by fire. June 28, First through train of the Canadian Pacific Railway left Montreal for Port Moody. July 31, First quinquennial census of Manitoba: population 108,640.
1887. Interprovincial Conference at Quebec. Apr. 4, First Colonial Conference at London. Apr. 16, The Welland Canal opened for navigation.
1890. Mar. 31, The Manitoba School Act abolishing separate schools.
1891. Apr. 5, Third Dominion Census: population 4,833,239. June 6, Death of Sir John A. Macdonald. Population of Newfoundland and Labrador, 202,040.
1892. Feb. 29, Washington Treaty, providing for arbitration of the Bering Sea Seal Fisheries question. July 22, Boundary Convention between Canada and United States. Fire destroyed the greater part of St. John's, Newfoundland.
1894. June 28, Second Colonial Conference at Ottawa.
1895. Sept. 10, Opening of new Sault Ste. Marie Canal.
1896. August, Gold discovered in the Klondyke.
1897. June 22, Diamond Jubilee of Queen Victoria. July, The third Colonial Conference at London. Dec. 17, Award of the Bering Sea Arbitration Court.
1898. June 13, The Yukon District established as a separate Territory. Aug. 1, British Preferential Tariff came into force. Aug. 23, Meeting at Quebec of the Joint High Commission between Canada and the United States. Dec. 25, Imperial penny (2-cent) postage introduced.
1899. Oct. 11, Outbreak of the South African War. Oct. 29, First Canadian Contingent left Quebec for South Africa.
1900. Feb. 27, Battle of Paardeberg. Apr. 26, Great fire at Ottawa and Hull.
1901. Jan. 22, Death of Queen Victoria and accession of King Edward VII. Apr. 1, Fourth Dominion Census: population 5,371,315. Sept. 16-Oct. 21, Visit to Canada of the Duke and Duchess of Cornwall and York. Dec. 12, First transatlantic wireless signal received by Marconi at St. John's, Newfoundland. Population of Newfoundland and Labrador, 220,984.
1902. May 31, Peace signed at Vereeniging ending the South African War. June 30, Fourth Colonial Conference at London. December, First message sent by wireless from Canada to the United Kingdom via Cape Breton, N.S.
1903. Jan. 24, Signing of the Alaskan Boundary Convention. Oct. 20, Award of the Alaskan Boundary Commission.
1904. Feb. 1, Dominion Railway Commission established. Apr. 19, Great fire at Toronto. Oct. 8, Incorporation of Edmonton. By the Anglo-French Convention exclusive fishing rights of the French in Newfoundland were waived in exchange for other concessions.
1905. Sept. 1, Creation of the Provinces of Alberta and Saskatchewan.
1906. Roald Amundsen, in the schooner *Gjoa*, arrived at Nome, Alaska, the first completed traverse of the North-West Passage. June 24, First quinquennial census of the three Prairie Provinces: population 808,646. Oct. 8, Interprovincial Conference at Ottawa.
1907. Apr. 15-May 14, Fifth Colonial Conference at London. Oct. 17, Transatlantic wireless open for public service. Dec. 6, First recorded passenger flight in Canada of a heavier-than-air machine (Dr. Graham Bell's tetrahedral kite, *Cygnét*).
1908. Jan. 2, Establishment at Ottawa of a branch of the Royal Mint. July 20-31, Quebec tercentenary celebrations. Visit of Prince of Wales to Quebec.



1909. Jan. 11, Signing of International Boundary Waters Convention between Canada and United States. Feb. 23, First flight in British Empire of a heavier-than-air machine under its own power piloted by a British subject (McCurdy's *Silver Dart* at Braddock's Bay, N.S.).
1910. May 6, Death of King Edward VII. Accession of King George V. Sept. 7, North Atlantic Coast Fisheries Arbitration Award of The Hague Tribunal. Trade agreements made with Germany, Belgium, Holland and Italy. Oct. 11, Inauguration at Berlin (now Kitchener) of Ontario Hydro-Electric Power Commission's transmission system.
1911. May 23 - June 20, Imperial Conference at London. June 1, Fifth Dominion Census: population 7,206,643. Population of Newfoundland and Labrador 242,619.
1912. Mar. 29 - Apr. 9, First Canada-West Indies Trade Conference held at Ottawa. Appointment of Dominions Royal Commission. May 15, Boundaries Extension Act settling boundaries of Quebec, Ontario and Manitoba.
1914. Aug. 4, War with Germany; Aug. 12, with Austria-Hungary; Nov. 5, with Turkey. Aug. 18-22, Special war session of Canadian Parliament. Oct. 16, First Canadian Contingent of over 33,000 troops landed at Plymouth, England.
1915. February, First Canadian Contingent landed in France and proceeded to Flanders.
1916. Jan. 12, Number of Canadian troops increased to 500,000. Feb. 3, Destruction by fire of the Houses of Parliament at Ottawa. June 1, Census of Prairie Provinces: population 1,698,137. Sept. 1, Corner-stone of new Houses of Parliament laid by Duke of Connaught.
1917. Feb. 12 - May 15, Imperial Conference. Mar. 20 - May 2, Meetings at London of Imperial War Cabinet. Mar. 21 - Apr. 27, Imperial War Conference. Sept. 20, Parliamentary franchise in Federal elections extended to women. Dec. 6, Serious explosion at Halifax, N.S.
1918. June-July, Imperial War Conference held at London. Sept. 30, Bulgaria surrendered and signed armistice. Oct. 31, Turkey surrendered and signed armistice. Nov. 4, Austria-Hungary surrendered and signed armistice. Nov. 11, Capture of Mons. Armistice signed.
1919. Feb. 17, Death of Sir Wilfrid Laurier. June 28, Signing at Versailles of Peace Treaty and Protocol. Aug. 22, Formal opening of Quebec Bridge by the Prince of Wales. Sept. 1, The Prince of Wales laid foundation stone of Peace Tower, Parliament Buildings, Ottawa. Sept. 1 - Nov. 10, Special peace session, thirteenth Parliament of Canada. Dec. 20, Organization of "Canadian National Railways".
1920. Jan. 10, Ratification of the Treaty of Versailles. May 31 - June 18, Trade Conference at Ottawa between Dominion and West Indian Governments. July 16, Ratification of the Treaty of St. Germain-en-Laye. Aug. 9, Ratification of the Treaty of Neuilly-sur-Seine. Nov. 15, First meeting of League of Nations Assembly began at Geneva, Switzerland.
1921. May 10, Preferential tariff arrangement with British West Indies became effective. June 1, Sixth Dominion Census: population 8,787,949. June 20 - Aug. 5, Imperial Conference. Nov. 11, Opening of Conference on Limitation of Armament at Washington. Population of Newfoundland and Labrador, 263,033.
1922. Feb. 1, Arms Conference at Washington approved five-power treaty limiting capital ships and disapproving unrestricted submarine warfare and use of poison gas. Apr. 10, General Economic Conference at Genoa, Italy. July 13, Conference between Canada and the United States re perpetuating the Rush-Bagot Treaty regarding armament on the Great Lakes. Aug. 7, Allied Conference on war debts and reparations opened at London. Dec. 9, Reparations Conference opened at London.
1923. Oct. 1, Imperial Conference and Economic Conference at London.
1926. June 1, Census of Prairie Provinces: population 2,067,393. Oct. 19 - Nov. 23, Imperial Conference at London. Nov. 26, Hon. C. Vincent Massey appointed first Envoy Extraordinary and Minister Plenipotentiary to the United States.
1927. Mar. 1, Labrador Boundary Award by the Privy Council defining the Newfoundland boundary in the Labrador Peninsula. June 1, Hon. Wm. Phillips, first U.S. Minister to Canada, reached Ottawa. July 1-3, Diamond Jubilee of Confederation celebrated throughout the Dominion. Oct. 4, First airmail service in Canada. November, Dominion-Provincial Conference at Ottawa.
1928. Apr. 25, Sir Wm. H. Clark appointed first British High Commissioner to Canada. May 31, Legislative Council of Nova Scotia ceased to exist, leaving Quebec the only province with a bi-cameral legislature.
1929. Dec. 14, Transfer of natural resources by Dominion Government to Manitoba and Alberta.
1930. Feb. 20, Transfer of natural resources to British Columbia. Mar. 20, Transfer of natural resources to Saskatchewan. Oct. 1, Imperial Conference at London.
1931. June 1, Seventh Dominion Census: population 10,376,786. Dec. 12, Statute of Westminster, establishing complete legislative equality of the Parliament of Canada with that of the United Kingdom and exempting the Dominion and the provinces from the operation of the Colonial Laws Validity Act and the Merchant Shipping Act, became effective.
1932. July 21 - Aug. 20, Imperial Economic Conference at Ottawa. Aug. 6, Official opening of the Welland Ship Canal.
1933. Jan. 17-19, Dominion-Provincial Conference.
1934. Jan. 30, Newfoundland Constitution suspended.
1935. Mar. 11, Bank of Canada commenced business. Dec. 9, Dominion-Provincial Conference at Ottawa; Naval Limitation Conference at London. Population of Newfoundland and Labrador, 289,588.
1936. Jan. 20, Death of King George V. Accession of King Edward VIII. June 1, Census of Prairie Provinces: population 2,415,545. July 26, Unveiling of Vimy Memorial in France by King Edward VIII. Dec. 11, Abdication of King Edward VIII and accession of H. M. King George VI.
1937. May 12, Coronation of H. M. King George VI. July 8, Imperial Airways flying boat *Caledonia* arrived at Montreal from Southampton, inaugurating the experimental phase of the Transatlantic Airways.
1938. Mar. 4, Unanimous judgments of the Supreme Court of Canada in favour of the Dominion Government on the Alberta constitutional references. (See 1941 Year Book, p. 19, for further references to this subject.) Oct. 1, Occupation



- of Sudeten areas of Czechoslovakia by Germany. Nov. 17, Trade Agreement between Canada and United States signed at Washington.
1939. Mar. 14, Invasion of Czechoslovakia by Germany. May 17 - June 15, Visit of Their Majesties King George VI and Queen Elizabeth to Canada and United States. Aug. 24, German-Soviet Russia mutual non-aggression treaty signed. Sept. 1, Poland invaded by Germany. Sept. 3, War with Germany declared by the United Kingdom and France. Sept. 10, Canada declared war upon Germany. Dec. 17, First Canadian troops landed in United Kingdom. British Commonwealth Air Training Plan Agreement signed at Ottawa by United Kingdom, Canada, Australia and New Zealand.
1940. Jan. 1, First municipal government in the Northwest Territories inaugurated at Yellowknife. Apr. 9, Germany invaded Denmark and Norway. Apr. 25, Quebec women granted franchise in provincial elections and enabled to qualify as candidates for the Legislature. June 22, Armistice signed between France and Germany. Aug. 17-18, Conference on defences of the northern half of the Western Hemisphere held at Ogdensburg, N.Y.; Permanent Joint Board on Defence created.
1941. Jan. 14-15, Dominion-Provincial Conference, called to consider findings of Royal Commission on Dominion-Provincial Relations, terminated without agreement. June 11, Eighth Dominion Census; population, 11,506,655. June 22, Germany attacked Russia. July 13, Canada approved Anglo-Soviet treaty. Dec. 7, Japanese attack on Pearl Harbour. Canada declared state of war with Roumania, Hungary, Finland and Japan. Dec. 8, Britain and United States declared war on Japan. Dec. 11, Germany, Italy and United States formally declared war.
1942. Jan. 2, Signing at Washington of joint declaration by 26 nations (including Canada), binding each to employ its full resources against the Axis Powers. July 3, Formation of Canadian joint naval, military and air staff at Washington. Aug. 19, Raid on Dieppe by Canadian troops supported by British, United States and Fighting French troops; Canadian casualties 3,350 out of 5,000 engaged. Nov. 9, Canada broke off relations with Vichy, France.
1943. Jan. 14-24, Prime Minister Churchill and President Roosevelt met at Casablanca to draft United Nations' war plans. May 12, Fighting ended in North Africa. July 10, British, Canadian and United States forces invaded Sicily. Aug. 10-24, Anglo-American War Conference held at Quebec city. Aug. 15, Canadian and United States troops occupied Kiska Island in the Aleutians. Aug. 25, President Roosevelt visited Ottawa, the first visit by a United States President to Canada's capital while holding office. Sept. 8, Unconditional surrender of Italy. Nov. 9, Canada signed UNRRA Agreement. Dec. 24, Gen. Dwight D. Eisenhower named Commander-in-Chief of Allied Forces for invasion of Europe.
1944. Mar. 17, International air transport authority created to regulate air traffic among nations. Mar. 20, Lt.-Gen. H. D. G. Crerar appointed to command the First Canadian Army. May 1-16, Conference of British Commonwealth countries at London, England. June 6, Allied invasion of Western Europe commenced. July 1-22, United Nations monetary and financial conference of 44 nations held at Bretton Woods, N.H., U.S.A. July 23, First Canadian Army commenced operations in Normandy as a separate army. Sept. 11-16, Second Quebec Conference attended by Prime Minister Churchill and President Roosevelt. Sept. 16, Siegfried Line broken by Allied troops. The Federal Government recognized the Provisional Government of the French Republic. Nov. 1 - Dec. 7, International Civil Aviation Conference of 54 nations, including Canada, held in Chicago, U.S.A.
1945. Apr. 12, Death of President Roosevelt. Apr. 25-June 26, United Nations World Security Conference met at San Francisco to prepare a charter for a general international organization. May 2, The war in Italy and part of Austria ended. May 7, Unconditional surrender to Gen. Eisenhower of the German Armed Forces. June 6, Establishment of Provisional International Civil Aviation Organization (P.I.C.A.O.) by 26 nations, including Canada. July 4, Canadian military troops entered Berlin as part of the British garrison force. July 26, The Potsdam Declaration issued by the Allied Powers. Aug. 6, First atomic bomb dropped at Hiroshima, Japan. Aug. 6-10, Dominion-Provincial Conference at Ottawa. Aug. 8, U.S.S.R. declared war against Japan. Aug. 9, Second atomic bomb dropped on the naval base of Nagasaki. Sept. 1, The Japanese officially laid down their arms. Oct. 16-Nov. 1, United Nations Food and Agriculture Organization Conference of 29 countries, including Canada, held at Quebec city. Dec. 17-28, U.K., U.S., and U.S.S.R. announced agreements on the United Nations control of atomic power. Population of Newfoundland and Labrador, 321,819.
1946. Jan. 10 - Feb. 15, First General Assembly of the United Nations held at London, England. Jan. 24, Establishment of Atomic Energy Commission upon which Canada is represented. Feb. 6, Judges of International Court of Justice elected Canada for a 3-year term. Apr. 29, The Dominion-Provincial Conference (adjourned Aug. 10, 1945) resumed its sittings, and adjourned without an agreement. June 1, Census of Prairie Provinces; population 2,362,941. June 9, The Right Honourable W. L. Mackenzie King established record for length of service as Prime Minister of Canada. June 21, A National Convention elected in the Island of Newfoundland to consider the economic situation and future form of Government. July 5, Canadian dollar adjusted to parity with the United States dollar. July 24, Wheat agreement arranged between Great Britain and Canada for a four-year period. July 29-Oct. 15, Peace Conference at Luxembourg Palace, Paris, France, to study texts of treaty agreements drafted by Allied Foreign Ministers Council. June-Sept., The National Convention delega-

- tion in Ottawa to discuss the basis for federal union of Newfoundland with Canada.
1947. Jan. 14, Canada elected to Economic and Social Council of United Nations. June 10-12, President Truman visited Ottawa. July 31, Canada represented at Imperial Privy Council meeting at London, England, for approval of marriage of Princess Elizabeth to Lieutenant Philip Mountbatten. Aug. 25-Sept. 11, Third Session of FAO Conference at Geneva. Sept. 16-Nov. 29, Second Session of the Second General Assembly of the United Nations at New York. Sept. 30, Canada elected to United Nations Security Council for two-year term. Oct. 30, Twenty-three countries, including Canada, signed multilateral trade agreements at Geneva Trade Conference. Nov. 20, Marriage of H.R.H. the Princess Elizabeth, Duchess of Edinburgh, and H.R.H. Prince Philip, Duke of Edinburgh at Westminster Abbey.
1948. Jan. 4, Union of Burma came into existence as an independent republic. Jan. 8, Canada given a permanent appointment on the Security Council of the United Nations. Feb. 4, Ceylon an independent country in the Commonwealth. Apr. 20, Appointment of Industrial Defence Board. The Rt. Hon. W. L. Mackenzie King established length-of-service record for any Prime Minister of the Commonwealth. July 15, Canada gave full support to a United Nations Security Council order to the Jews and Arabs to cease fighting in Palestine. July 22, Referendum held in Newfoundland resulted in a majority vote cast in favour of Confederation with Canada. Aug. 5, The Rt. Hon. W. L. Mackenzie King resigned as Leader of the Liberal Party, ending 29 years of leadership. Aug. 7, The Rt. Hon. L. S. St. Laurent, Secretary of State for External Affairs, chosen by the National Liberal Convention at Ottawa to succeed The Rt. Hon. W. L. Mackenzie King as Leader of the Liberal Party. Sept. 1, The Federal Labour Code, establishing machinery for collective bargaining and settlement of industrial disputes, became effective. Sept. 10, Appointment of The Rt. Hon. L. S. St. Laurent as Minister of Justice. Sept. 30, John Bracken tendered his resignation as national Leader of the Progressive Conservative Party in Canada. Oct. 2, George A. Drew, K.C., elected as Leader of the Progressive Conservative Party. Oct. 6-27, Representatives of Canada and Newfoundland met at Ottawa to discuss final arrangements for Newfoundland's entry into Confederation as the tenth Province of Canada. Oct. 20, United Nations General Assembly at Paris approved Canadian-sponsored plan for atomic energy control. Nov. 14, A son (Prince Charles Philip Arthur George) born to Their Royal Highnesses, Princess Elizabeth and Prince Philip. Nov. 15, Governor General Viscount Alexander accepted the resignation of retiring Prime Minister W. L. Mackenzie King. The Rt. Hon. L. S. St. Laurent took the oath as President of the Privy Council and became Prime Minister of Canada. Dec. 11, Representatives of Canada and Newfoundland signed the agreement under which Newfoundland, after approval by the Parliament of Canada and the Government of Newfoundland and confirmation by the Parliament of the
- United Kingdom, was to enter Confederation as the tenth province of Canada.
1949. Jan. 26, Opening of the fifth session of the Twentieth Parliament at Ottawa. Feb. 18, Royal Assent given to the Terms of Union with Newfoundland by the Federal Parliament. Feb. 21, Newfoundland's Commission Government announced approval of the Terms of Union with Canada. Mar. 10, The Provincial Government of Quebec banned the manufacture and sale of margarine. Mar. 23, Royal Assent given to the North America Bill passed by the British Parliament to the union of Canada and Newfoundland. Mar. 31, Newfoundland became the tenth Province of Canada. Apr. 1, Sir Albert J. Walsh appointed first Lieutenant-Governor of the Province of Newfoundland. Apr. 4, Canada signed the North Atlantic Treaty at Washington, D.C. Apr. 12, Joint United States-Canada Industrial Mobilization Committee established. Apr. 18, Ireland (Eire) became the Republic of Ireland. Apr. 21, Meeting of Commonwealth Prime Ministers held at London, England. The Hon. L. B. Pearson, Minister for External Affairs, represented Canada. Apr. 28, India decided to become a sovereign independent republic within the Commonwealth. Apr. 30, Dissolution of fifth session of Twentieth Parliament. May 11, Canada, together with six other countries, approved membership of Israel in the United Nations. May 17, Canadian Government granted full recognition as a state to Israel. May 18, Spring session of the Third General Assembly of the United Nations, held at Flushing Meadows, New York, ended. May 23, The Foreign Ministers' Conference, with representatives from the United Kingdom, United States, France and U.S.S.R., met at Paris. The existence of a new state to be known as the Federal Republic of Germany was proclaimed at Bonn. May 27, First general election in Newfoundland as a Province of Canada. The Liberal Party returned to office under Premier J. R. Smallwood. May 31-June 11, Third Annual Conference of the International Federation of Agricultural Producers held at Guelph, Ont., with representatives from 23 nations. June 7-20, Third Assembly of the International Civil Aviation Organization held at Montreal; Brigadier C. S. Booth head of Canadian delegation. June 9, Provincial general election in Nova Scotia; The Hon. Angus L. Macdonald returned to power. June 27, Federal general election; Liberals under leadership of The Rt. Hon. L. S. St. Laurent returned to power. July 8-10, Meeting of Finance Ministers at London, England, pledged United Kingdom, United States and Canada to review economic and trading policies; The Hon. D. C. Abbott represented Canada. July 13-18, Conference of Commonwealth Finance Ministers at London, England, to discuss fall in sterling reserves; The Hon. D. C. Abbott represented Canada. July 13, Opening of first Provincial Legislature of Newfoundland at St. John's. Aug. 17-Sept. 6, United Nations Scientific Conference on Conservation and Utilization of Resources held at Lake Success, N.Y.; Dr. H. L. Keenleyside represented Canada. Aug. 24, Formal proclamation of North Atlantic Pact at Washington, D.C.

*(Continued in Appendix I of this Volume)*

# CHAPTER III.—CONSTITUTION AND GOVERNMENT

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume. Appointments made after this Chapter went to press are given in the Annual Register at the end of this volume.

The government of Canada is provided for by the British North America Act (30-31 Vict., c. 3) of 1867.\* This Statute of the Imperial Parliament, as from time to time amended, forms the written basis of the constitution of Canada. Subsequent sections of this Chapter describe the processes by which the constitution has developed and the institutions, as at present constituted, by which Canada is governed.

The several stages in the development of the status of the Dominion have been authoritatively described in the reports of successive Imperial Conferences including that held at London in 1926, which defined the group of self-governing communities consisting of the United Kingdom and the Dominions as "autonomous communities within the British Empire, equal in status, in no way subordinate one to another in any aspect of their domestic or foreign affairs, though united by a common allegiance to the Crown and freely associated as members of the British Commonwealth of Nations". That Conference also recognized that, as a consequence of this equality of status, the Governor General of a Dominion "is the representative of the Crown, holding in all essential respects the same position in relation to the administration of public affairs in the Dominion as is held by His Majesty the King in Great Britain", and that "it is the right of the Government of each Dominion to advise the Crown in all matters relating to its own affairs". Simultaneously, with this change in the constitutional relationship between the several parts of the British Commonwealth of Nations, there developed, as a complementary aspect of nationhood, the assumption by the several Dominions of further responsibilities and rights of sovereign States in their relations with other members of the community of nations. Membership in the League of Nations and, more recently in the United

\* See pp. 40-60 of the 1942 Year Book for text of the original B.N.A. Act and notes regarding amendments and modifications thereto.



Nations, the exercise of treaty-making powers and the establishment of separate diplomatic representation in a number of foreign countries have characterized this phase in the growth of Canada. More explicit recognition of the implications of the principles of equality of status was accorded in the Statute of Westminster of 1931, which provided for the removal of the remaining limitations on the legislative autonomy of the Dominions.

Thus, Canada has, under the Crown, equality in status with Great Britain and the other Dominions in both domestic and foreign affairs; its government advises the Crown in the person of the Governor General on all matters relating to Canada; it has membership in the United Nations; makes its own treaties; appoints its own ambassadors and other representatives abroad; levies its own taxes; makes its own laws which are executed by a government dependent on the will of a majority of the Canadian people; and maintains its own military, naval and air forces. In short, Canada has achieved the full status of democratic nationhood within the Commonwealth of Nations.

## **PART I.—THE CONSTITUTION AND GENERAL GOVERNMENT OF CANADA**

The two basic characteristics of the Canadian constitution are that it is federal and that, apart from the federal aspect, it is modelled closely on the British Parliamentary system.

Federation occurred in 1867 with the union of three colonies, Nova Scotia, New Brunswick, and Canada, which was divided into two provinces, Ontario and Quebec. The colony of British Columbia joined in 1871 and Prince Edward Island in 1873. Three other provinces were created out of Hudson's Bay Company lands acquired in 1868: Manitoba in 1870, and Saskatchewan and Alberta in 1905. The Dominion of Newfoundland by a majority vote in a national referendum, taken on July 22, 1948, decided to enter Confederation and union took place Mar. 31, 1949.

The federal aspect of the constitution is defined by the British North America Act, 1867, and amendments. This Act divides the field of legislative and executive power between national and provincial authorities. It provides also the legal framework for national and provincial political institutions, but leaves the provinces full discretion to amend their own constitutions except with respect to the office of Lieutenant-Governor, the formal head of provincial government, and except that no provincial legislative authority may invade the field allotted by the Act to the Parliament of Canada.

### **Section 1.—The Evolution of the Constitution prior to Confederation**

The process of the development of free government in the Dominion of Canada prior to Confederation is given in an article appearing at pp. 34-40 of the 1942 Year Book. Also in an Appendix to that article, pp. 40-60, the text of the British North America Act is presented.

### **Section 2.—The Development of the Constitution since Confederation**

An article bringing the developments since Confederation up to date is published at pp. 41-47 of the 1943-44 Year Book. See also list of Special Articles under "Constitution and Government" at the beginning of this volume.



### Section 3.—The Constitutional Development of Newfoundland prior to Union with Canada, 1949\*

The history of government in Newfoundland goes back 400 years to the time when Newfoundland was an international fishing station, regarded officially in England as a "nursery for seamen" and a valuable fishery and by the West Country fish merchants of England as their special preserve. Down to 1800 the three main elements in the constitutional struggle over Newfoundland were the mercantile and naval policy of England with regard to the colonies, the influence of the West Country merchants in England and the agitations of the steadily growing population of the Island for local institutions.

The so-called Fishing Admirals constituted the earliest, if rudimentary, government. Their authority was at first based upon local custom but the seat of control over the fishery was at London. A statute of 1548 prevented Admiralty officers from exacting bribes from fishermen proceeding to Newfoundland, Iceland and Ireland. The Admirals, who seem to have operated under the wing of the Navy, remained entrenched despite an attempt of the English Government to establish some order through courts of Vice-Admiralty in 1615.† A Star Chamber rule of 1633 explicitly provided that the captain of the first ship to arrive in harbour should be Admiral of the harbour for the season. An Act of William III in 1699 gave the Admirals specific, though minor, judicial functions.

The Admirals were supposed to keep a record of all fisheries matters, act as judges in disputes and, in general, have full control in the harbour. Their justice was rough and often harsh. The only time of hope for the settlers during this early period was the short-lived government of the fishery by commission during the interregnum of Oliver Cromwell.

The first advance for the settlers was the appointment of Capt. Henry Osborne by the Crown as Governor of the Island in 1729.§ He was also appointed Commander-in-Chief of the Island. A local assembly modelled on the New England 'town meeting' had been set up in 1711 but it was a rather academic affair and lasted only two years.

The naval governors, of whom Osborne was the first, were concerned not only with executive functions arising from statutes, treaties and governmental instructions, or from their powers as Royal Governors, but also with their role under Admiralty instructions in the naval strategy against France. A contemporary writer‡ noted that "the government such as it is resides in the Admiralty". William Knox, a senior official in London, declared before Parliament a few years later: "The Island of Newfoundland has been considered, in all former times, as a great ship moored near the Banks during the fishing season, for the convenience of English fishermen. The Governor was considered as the ship's captain, and those who were concerned in the fishery business as his crew, and subject to naval discipline while there, and expected to return to England when the season was over".

\* Prepared by the Department of External Affairs, Ottawa.

† See p. 89.

§ The sovereignty of the United Kingdom over Newfoundland had been recognized by the Treaty of Utrecht, 1713.

‡ Dr. Gardiner of Boston in 1784.

Unfortunately, Osborne and his successors were appointed by exercise of the royal prerogative. This was not theoretically wrong. The Admirals had a semblance of statutory authority and the supremacy of Parliament over the prerogative of the Crown had by now been established. The failure of the Government to secure from Parliament the statute necessary for the maintenance of Government and law in the Island may be attributed largely to the influence of the West Country merchants. The Fishing Admirals challenged, often with violence, the justices of the peace and the Governor resided in Newfoundland only during the fishing season. The creation of a Supreme Court by statute in 1791, however, exemplified the abandonment of the struggle by the Fishing Admirals and of the realization by the merchants in England that they could no longer hope to unseat the Royal Governors.

While there was now an executive authority (though little more than an agent of the authorities in London) and after 1791 a judicature, a local legislature was lacking. The demand for a voice in law-making and policy took the form of a desire not for seats in the United Kingdom Parliament but for a local legislature to deal with local affairs. In this Newfoundland followed the line of development of other British colonies.

In 1803 the Governor, Lord Gambier (1802-04), urged "the establishment of a legislative power in Newfoundland, similar to that which has been found necessary to the prosperity and good government of other parts of His Majesty's foreign dominions".\* Likewise Governor Duckworth (1810-12) recommended that a local authority be created. Shortly afterwards, in 1817, the settlers were conceded their wish that the Governor should reside on the Island throughout the year.

Representative government was granted in 1832, despite the antagonism of the West Country merchants. Its form—though not its practice—existed down to the institution of Government by Commission in 1934. The executive authority was vested in the Governor. He was assisted by an Executive Council, whose functions were purely advisory. The legislature was made up of a Legislative Council and a House of Assembly. The Legislative Council† was nominated by the Governor, while the Assembly was elected by popular vote. The two were empowered to make laws for the colony subject to the ultimate approval of the King-in-Council in London.

The Governor continued to receive instructions from London as a colonial governor. He was required to refuse in certain cases his assent to local measures. He was not yet required to accept the advice of ministers responsible to the local legislature.

The evolution of responsible government and progress towards the conditions confirmed by the Statute of Westminster of 1931, worked inside this form in a way familiar to the self-governing countries of the Commonwealth.

The newly-fledged popular assembly was not content with the change made in 1832. The Executive Council contained none of the persons elected by franchise. It consisted entirely of officials nominated by the Governor, including the Chief Justice of the Supreme Court, the Attorney General and the commander of the land forces. From the outset the Executive Council and the Assembly clashed. Although

\* Lord Gambier to Lord Hobart, December 12, 1803. The Government had already done so for Nova Scotia.

† A kind of Upper House.

in 1838 non-official members were added to the Council, a deadlock ensued.\* In 1841 the Government in London suspended the new constitution and instituted the Amalgamated Legislature, in which the members of both Houses sat together. This experiment proved a complete failure and, in 1848, the original constitution was restored.

Political events in the United Kingdom had led to the Reform Bill of 1832, the beginning of a long process of extending the popular basis of government, and the repeal of the Corn Laws, an important step in the direction of free trade. Thus the continued agitations of the people of Newfoundland for an executive responsible to their own legislature fell on more receptive ears. The principle of responsible government was finally conceded in 1855† as had already been done for the colonies of British North America on the mainland.

Newfoundland now had a Cabinet advising the Governor and responsible to the elected Assembly. General elections henceforth determined the nature and the term of the Executive Council, whose advice the Governor was obliged to accept within the ambit of his executive powers.

The legislature was nevertheless still a local one. Its measures had no effect beyond the territory of Newfoundland, nor within the territory itself where they conflicted with 'Imperial Statutes' extending to the colony. The conduct of foreign affairs continued in the hands of the Foreign Office in London and as between St. John's and London took chiefly the form of protests over the apparent sacrifice of the interests of Newfoundland to those of France in fisheries matters. The "Labouchere Letter"§ records an advance for the colony in foreign affairs in these terms, "The proposals contained in the Convention [of 1857 between the United Kingdom and France] having been unequivocally refused by the Colony, they will, of course, fall to the ground . . . the consent of the community of Newfoundland is regarded by Her Majesty's Government as the essential preliminary to any modification of their territorial or maritime rights". Confederation discussions with the other British North American colonies too were conducted not through London but by representatives from Newfoundland.

While in theory the laws enacted by the local legislature could be repealed or altered by the Parliament in London, legislation of the United Kingdom Parliament relating to purely internal matters in the colony came to be regarded as unconstitutional. This practice was one example of the growth of local autonomy within the subordinate constitutional relationship of 'the Dominions' with the United Kingdom. These developments were explicitly recognized in 1931 by the Statute of Westminster. Although Newfoundland was named a 'Dominion' by the Statute, it did not adopt the clauses that provided for extra-territorial legislation by 'the Dominions' and for the extension to them of United Kingdom legislation only by their own request and consent.

At the time that the legislature adopted the Amulree Report‡ of 1933, the constitutional forms of Newfoundland were little changed from those of 1855.

\* This situation incidentally gave rise to the case of *Kielly v. Carson*, which established the extent of the privileges of colonial parliaments generally.

† Royal instruction to the Governor of Newfoundland, May 5, 1855.

§ Mr. Henry Labouchere, Colonial Secretary in the United Kingdom Government, to Governor Darling, 1857.

‡ The Report of the Royal Commission asked for by the Newfoundland Legislature owing to the severe financial crisis in the country.



In their practical operation, however, they constituted a full parliamentary democracy on the British model. The Governor's position was akin to that of the King, whom he represented. The executive business was carried on by a Cabinet formed from the party having and retaining a majority in the elected Assembly. The Cabinet when meeting to form policy was a Committee of the Executive Council under the chairmanship of the Prime Minister. The Council, meeting for the formal exercise of its powers, chiefly to approve minutes of the Committee, was presided over by the Governor acting as the Governor in Council.

The Assembly remained the elected House. The electoral franchise extended to men at twenty-one years of age and women at twenty-five, provided they were British subjects of at least two years residence. The Legislative Council remained a body appointed by the Governor on the advice of the Cabinet.

Generally speaking, all bills required the approval of both Houses before receiving the Governor's assent, although in certain cases the Council could not bar the passage of a measure from the Assembly. The rules of procedure of the two Houses were based upon those of the Parliament of the United Kingdom.

The adoption of the recommendations of the Royal Commission entailed the suspension of the constitution of 1855\* and the institution of Government by Commission. By Letters Patent based upon the Newfoundland Act, 1933, of the United Kingdom Parliament, Newfoundland was to be governed by a Governor and six Commissioners appointed by the Crown, three from Newfoundland and three from the United Kingdom. The Governor was both the King's representative and the chairman of the Commission. The Commission had both executive and legislative powers. Bills were published before enactment; otherwise the popular will was not ascertained by any constitutional procedure. The proceedings of the Commission were subject to supervisory control by the United Kingdom Government and the Governor-in-Commission was responsible to the Dominions Office for good government. Responsible government would be restored on request from the people of Newfoundland as soon as the country was self-supporting again.

This sudden intrusion of autocracy into Newfoundland after generations of responsible self-government may be summed up as an administrative expedient designed to meet a critical condition of the times. Its effect upon the constitutional status of Newfoundland seems ambiguous. The Statute of Westminster was never amended to exclude Newfoundland from the provisions applicable to it at the time of enactment. Thus, Newfoundland became a 'Dominion' with suspended status. This form of government remained until Mar. 31, 1949, when Newfoundland became united with Canada as a Province.

On two occasions previous to 1948, Newfoundland entered into negotiations with a view to joining the Canadian Confederation. In 1869 a pro-confederation movement ended with the defeat of the government that favoured the measure. Another attempt ended when a delegation sent to Ottawa in 1895 failed to secure agreement on financial terms. Fifty years later the future government of Newfoundland became an issue and in a national referendum held in 1948 a majority

\* As set forth subsequently in Letters Patent of 1876, amended by Letters Patent in 1905.



of the voting electors in a heavy poll decided, on the second ballot, in favour of confederation.\* The Terms of Union, signed on Dec. 11, 1948, restored the Executive Council and the House of Assembly, though not the Legislative Council,† subject to the terms of the British North America Acts. Within the provincial sphere of jurisdiction the new government works on the parliamentary model as before, with a Lieutenant-Governor appointed by the Governor General in Council. The new franchise extends to women aged 21 years or more.

**Administration of Justice.**—The Fishing Admirals were required to act as judges in all disputes but the seizure, trial and punishment of offenders by these rough seafaring adventurers constituted a very crude judicial process. There was no clear system of law and little guidance was afforded to either judge or accused. Sir Humphrey Gilbert proclaimed at St. John's in 1583 that the Island was "to be governed by such lawes as by good advise should be set down which in all points (so neere as might be) should be agreeable to the Lawes of England", but this evidently came to nothing. The attempts of companies to colonize the Island, and with it to establish laws, were short-lived. Likewise the despatch of Sir Richard Whitborne to Newfoundland in 1615 to hold Courts of Vice Admiralty, while it was the first primitive attempt to create a formal court of justice in Newfoundland, was a legal farce, lacking any public funds or power to execute sentence. Whitborne inquired into disorders committed on the coast and delivered the presentments of the captains of 170 English ships to the High Court of Admiralty. The captains merely avowed that the disorders would cease.

The Star Chamber Rules of 1633 prohibited a number of acts, enjoined the Fishing Admirals to enforce them and to preserve the peace. Cases of killing or of stealing goods worth 40 shillings or more were to be sent for trial in England. The rules gave jurisdiction over infringements by ship-owners to courts in England.

A regulation of Charles II in 1670 required that persons accused of any crime be brought to England for trial. This proved impracticable and was altered in the next century. Meanwhile prisoners were often unable to procure witnesses, owing to expense or the unwillingness of witnesses to leave the fishery.

The Act to Encourage the Trade to Newfoundland of William III confirmed the ancient custom of Admirals. It required them to "settle differences" between ships and also between fishermen and inhabitants. There was given a right of appeal to the commander of the "ships of war appointed as convoys", if indeed one lay near enough. The Act, noting that felons had often escaped punishment "because the trial of such offenders hath been ordered before no other court but the Lord High Constable and Earl Marshall of England", provided "that all robberies, murders, etc., committed there (i.e., Newfoundland) may be tried in any shire of England by virtue of the King's commission of oyer and terminer and gaol delivery‡ according to the laws of this realm". Other offences continued, presumably, to be dealt with under the rough-and-ready justice of the Admirals. The Admirals

\* Two national referenda were held. On June 3, 1948, responsible government obtained a plurality but not a majority over the continuation of commission government and confederation with Canada. In the second ballot, held on July 22, 1948, continuation of commission government, having received the least votes, was not included.

† The Legislature of the Province may do so.

‡ The customary commission which empowered Royal Justices travelling on circuit to "deliver the gaols" of any prisoners held for trial and to "hear and determine" (i.e. pronounce judgment on) their cases.

were given the task of enforcing, both in harbour and on shore, the requirements of the Act. No penal clause was attached and words that might have created a court were carefully avoided.

In spite of the appointment of Osborne as Royal Governor in 1729, the Government in London delayed the enactment of a statute for the governing of the Island. For sixty more years the justices of the peace tried to keep order despite the Fishing Admirals and the absence of properly settled laws. It was intended that a skilled lawyer should be sent out each year with a commission of oyer and terminer. However, Osborne was merely sent copies of the statutes and an ancient treatise on law. He sent back to London "a copy of the Commission given to justices drawn up in the best manner he was capable of doing not being well acquainted with forms of such Commissions nor with powers granted him not having time enough to prepare himself with them before he received His Majesty's command to begone".\* The Admirals continued to seize and punish offenders. They frequently set aside the new magistrates, who were often ill-equipped and who sometimes assumed tasks beyond the administration of justice for which a statute would have provided proper authority.†

The Governors sat in open court until 1789, applying "quarter-deck law".§ The Naval Governor customarily named a subordinate officer as his surrogate or Deputy Governor, one of whom was instructed by Capt. George Rodney (later Lord Rodney) as follows:—

"In case any other complaints shall appear before you of crimes and misdemeanours committed upon the land you have full power to adjudge and determine the same according to the custom of the country and the best of your judgment."

In 1750 the Governor's Commission included authority to set up a court of oyer and terminer. This step entailed trial by jury in Newfoundland. Each case had to be reported to London before sentence could be executed.

It was recorded in 1784 that the courts in Newfoundland were the local justices, the Court of Oyer and Terminer, the Court of Vice-Admiralty and the "Justice Courts", held twice a week in St. John's at the instance of the Governor. The Governor seemed to make the Judge of Admiralty head of his Law Department.‡ The judges of the Court of Oyer and Terminer usually included the Judge of Admiralty (who presided), two or three justices of the peace, and one or two merchants. According to contemporary practice, judges were paid by fees, which were heavy.

At length a great indignation arose among the settlers against this system. One result was a suit against Governor Sir John Elliott on his return to England in 1789, and the end of the Governor's practice of sitting in open court. The next Governor, Admiral Milbanke, created in 1789 a (civil) Court of Common Pleas with

\* Despatch to the Duke of Newcastle, October 14, 1792.

† For example, the summoning of merchants and masters to pay wages.

§ D. W. Prowse, *A History of Newfoundland*, London, 1895.

‡ Dr. Gardiner of Boston; he noted with disgust that the judge of the time was "keeper of a gin-shop".

regular justices instead of justices of the peace. This led to a parliamentary investigation of the judicial system and to the Act of 1791. The Act created a court of civil jurisdiction at St. John's with a Chief Justice, to continue for one year. In 1792 the court was designated the Supreme Court of Judicature of Newfoundland. The Court was prolonged yearly against the opposition of the West Country merchants until 1809 when it was made permanent. The Chief Justice and soon afterwards the magistrates were given regular stipends. In 1824 came the Act for the Better Administration of Justice, which provided for a Supreme Court of Newfoundland having all civil and criminal jurisdiction in Newfoundland and jurisdiction over all crimes committed on the banks of Newfoundland or any seas or island to which ships repaired from Newfoundland for carrying on the fishery. The Court was to have a Chief Justice and two puisne judges. The Governor was empowered to establish three annual circuit courts. From these there was a right of appeal to the Supreme Court, with which the circuit courts shared a similar jurisdiction save over certain crimes and violations of certain trade and revenue statutes. In the last resort, appeals could be made to the Privy Council in London. Provision was also made for a civil court on the Coast of Labrador. The Supreme Court was set up in 1826. The state of affairs recorded in 1784 was thus remedied and the administration of justice was entrusted to the Colony.

The Consolidated Statutes of Newfoundland of 1916 provided for a Department of Justice. The Minister of Justice was also Attorney General and was charged with the administration of justice.

The supreme civil and criminal jurisdiction of the Supreme Court and the right of appeal from it to the Privy Council were continued. The Court administered both law and equity. It had been made a Court of Admiralty in 1890 and was also a Court of Probate. The bench consisted of a Chief Justice and two puisne judges. The grand jury was retained. Criminal trials were held before a court of one judge with a petty jury of twelve. Civil cases could be heard before one judge with or without a jury and with a right of appeal to the full bench.

The justices of this Court travelled on circuit from St. John's by rail in the spring and autumn to serve the larger towns, including Grand Falls and Corner Brook. The boat circuit, which had been abandoned between 1931 and 1938, was given up again in 1940.

The Central District Court was given a limited civil jurisdiction in the central district comprising St. John's and vicinity with a right of appeal to the Supreme Court. The Court was to have one judge who would also be *ex officio* stipendiary magistrate for the district.

Stipendiary magistrates replaced the old courts of quarter sessions composed of justices of the peace sitting together. A complete reorganization of the stipendiary magistracy was undertaken in 1935. At the time of union in 1949 there were seven district magistrates, whose districts covered the whole of the Island outside the central district. The magistrate at St. Anthony also makes an annual tour of the Labrador Coast. Most of the magistrates have been laymen. Under the 1935



scheme they exercise, in addition to their judicial function, a general supervision over government activities in their district\* and are a channel of communication between the government and the inhabitants.

The Court of Labrador is in practice obsolete.

Since 1832 the law administered in Newfoundland has included the United Kingdom statute law up to 1832, together with subsequent local statutes and United Kingdom statutes extending to Newfoundland.† The common law was that of the United Kingdom. The general criminal law of the United Kingdom was adopted by statute subject to any variations made by local enactments.

The system of 1916 with the new magistracy comprised the system of administration of justice with which Newfoundland entered into Confederation.

**Municipal and Local Government.**—Municipal and local government has been slow to develop in Newfoundland. The communities are small and scattered. Cash incomes have until recently been low. The people have been unaccustomed and indeed opposed to direct taxation. Few municipalities impose property taxes. In the past the provision and control of local services has, over wide areas, fallen to the central government, which derived its chief revenues from indirect taxes.

Up to 1942, St. John's was the only incorporated municipality among the urban areas. Its city council was constituted in 1888. Municipal elections are held every four years.

In 1933 the Local Government Act was enacted. It was not until 1942 that the first two municipalities outside St. John's came into being. By July, 1949, there were 21 incorporated municipalities, apart from St. John's, having populations between 1,000 and 2,000. The total population possessing municipal government in 1948 was about 78,500; of these 43,000 were in St. John's. Corner Brook and Grand Falls are administered by the pulp and paper companies situated there, and Buchans by the mining company.

Newfoundland has had no organized units of local government comparable to townships or counties such as exist in the other Eastern Provinces for the administration of welfare, health, road and education services, judicial administration, enforcement of law and registrations. In Newfoundland local school boards have no authority to impose taxes; they are simply appointed administrative boards. Nevertheless there exists a system of elective road boards for the encouragement of local initiative in road building and maintenance. The administrative function of the stipendiary magistrates has already been mentioned.

It is to be expected that municipal and local government institutions will gradually increase. The main limiting factors will probably be the small size of most of the settlements and their wide distribution along about 6,000 miles of sea-coast, together with the low real-property values characteristic of fishing and non-industrial communities.

\* Compare the functions assigned to justices of the peace by the Naval Governors.

† Newfoundland did not adopt the provisions of the Statute of Westminster that would have enabled its legislature to repeal such statutes, or to have them extended in future only by its request and consent.



## PART II.—ORGANIZATION

The Federal Parliament consists of the Governor General and the Privy Council (of which the Cabinet, or Ministry, is an active committee responsible to the Legislature for all matters of policy) at the head of the Executive Branch, the Senate and House of Commons comprising the Legislative Branch, and the courts representing the Judicial Branch of government. There is no clearly defined separation of powers since those members of the Privy Council who are members of the Cabinet, have seats in the Legislature, and within that body, in turn, the Senate exercises some judicial functions. Each of the provinces has a similar system. In both Federal and Provincial Governments there is responsible government, whereby the Ministry is answerable for its conduct to the elected representatives of the people in the House of Commons or the Legislative Assemblies. This device is not mentioned in the British North America Act but, except for some modifications to meet local conditions, British practice has been followed. Under the Constitution the courts administer the law as it is drawn up and amended by the Legislature.

### Section 1.—The Federal Government

#### Subsection 1.—The Executive

**The Governor General.**—The Governor General is appointed by the King usually for a term of five years. He is bound by the terms of his commission and instructions and can exercise only such authority as is expressly entrusted to him. He acts under the advice of his Ministry, which is responsible to Parliament, and, as the acting head of the Executive, summons, prorogues and dissolves Parliament, and assents to or reserves bills. New Letters Patent came into force on Oct. 1, 1947, whereby it is legally possible for the Governor General, on the advice of Canadian Ministers, to exercise any of the powers and authorities of the Crown in respect of Canada, without the necessity of a submission being made to the King.

**Salary and Allowances.**—The Governor General receives a salary of £10,000 per annum charged against the consolidated revenue. He also receives a travelling allowance of \$50,000 annually.

#### 1.—Governors General of Canada, 1867-1949

Name	Date of Appointment	Date of Assumption of Office
VISCOUNT MONCK, G.C.M.G.....	June 1, 1867	July 1, 1867
LORD LISGAR, G.C.M.G.....	Dec. 29, 1868	Feb. 2, 1869
The EARL OF DUFFERIN, K.P., K.C.B., G.C.M.G.....	May 22, 1872	June 25, 1872
The MARQUIS OF LORNE, K.T., G.C.M.G.....	Oct. 5, 1878	Nov. 25, 1878
The MARQUIS OF LANSDOWNE, G.C.M.G.....	Aug. 18, 1883	Oct. 23, 1883
LORD STANLEY OF PRESTON, G.C.B.....	May 1, 1888	June 11, 1888
The EARL OF ABERDEEN, K.T., G.C.M.G.....	May 22, 1893	Sept. 18, 1893
The EARL OF MINTO, G.C.M.G.....	July 30, 1898	Nov. 12, 1898
EARL GREY, G.C.M.G.....	Sept. 26, 1904	Dec. 10, 1904
FIELD MARSHAL H.R.H. The DUKE OF CONNAUGHT, K.G.....	Mar. 21, 1911	Oct. 13, 1911
The DUKE OF DEVONSHIRE, K.G., G.C.M.G., G.C.V.O.....	Aug. 19, 1916	Nov. 11, 1916
GENERAL The LORD BYNG OF VIMY, G.C.B., G.C.M.G., M.V.O.....	Aug. 2, 1921	Aug. 11, 1921
VISCOUNT WILLINGDON OF RATTON, G.C.S.I., G.C.I.E., G.B.E.....	Aug. 5, 1926	Oct. 2, 1926
The EARL OF BESSBOROUGH, G.C.M.G.....	Feb. 9, 1931	Apr. 4, 1931
LORD TWEEDSMUIR OF ELSFIELD, G.C.M.G., G.C.V.O., C.H.....	Aug. 10, 1935	Nov. 2, 1935
MAJOR-GENERAL The EARL OF ATHLONE, K.G., P.C., G.C.B., G.C.M.G., G.C.V.O., D.S.O.....	Apr. 3, 1940	June 21, 1940
FIELD MARSHAL The RIGHT HONOURABLE VISCOUNT ALEXANDER OF TUNIS, K.G., G.C.B., G.C.M.G., C.S.I., D.S.O., M.C., LL.D., A.D.C.....	Aug. 1, 1945	Apr. 12, 1946

**The Ministry.**—Canada's system of government is based upon that of the British, by which a Cabinet or Ministry (composed of members of the House of Commons or the Senate) is responsible to Parliament. The Cabinet is actually a

committee of the King's Privy Council for Canada. Without enlarging upon the features of the system, it may be sufficient to note that the Cabinet is responsible to the House of Commons and, following established precedent, resigns office when it becomes evident that it no longer holds the confidence of the people's representatives. Members of the Cabinet are chosen by the Prime Minister; each generally assumes charge of one of the various Departments of Government, although a Minister may hold more than one portfolio at the same time, or may be without portfolio.

### 2.—Prime Ministers Since Confederation

Ministry	Prime Minister	Length of Administration
1	Rt. Hon. Sir JOHN ALEXANDER MACDONALD.....	July 1, 1867 - Nov. 5, 1873
2	Hon. ALEXANDER MACKENZIE.....	Nov. 7, 1873 - Oct. 16, 1878
3	Rt. Hon. Sir JOHN ALEXANDER MACDONALD.....	Oct. 17, 1878 - June 6, 1891
4	Hon. Sir JOHN JOSEPH CALDWELL ABBOTT.....	June 16, 1891 - Nov. 24, 1892
5	Rt. Hon. Sir JOHN SPARROW DAVID THOMPSON.....	Dec. 5, 1892 - Dec. 12, 1894
6	Hon. Sir MACKENZIE BOWELL.....	Dec. 21, 1894 - Apr. 27, 1896
7	Hon. Sir CHARLES TUPPER.....	May 1, 1896 - July 8, 1896
8	Rt. Hon. Sir WILFRID LAURIER.....	July 11, 1896 - Oct. 6, 1911
9	Rt. Hon. Sir ROBERT LAIRD BORDEN.....	Oct. 10, 1911 - Oct. 12, 1917 (Conservative Administration)
10	Rt. Hon. Sir ROBERT LAIRD BORDEN.....	Oct. 12, 1917 - July 10, 1920 (Unionist Administration)
11	Rt. Hon. ARTHUR MEIGHEN.....	July 10, 1920 - Dec. 29, 1921 (Unionist—"National Liberal and Conservative Party")
12	Rt. Hon. WILLIAM LYON MACKENZIE KING.....	Dec. 29, 1921 - June 28, 1926
13	Rt. Hon. ARTHUR MEIGHEN.....	June 29, 1926 - Sept. 25, 1926
14	Rt. Hon. WILLIAM LYON MACKENZIE KING.....	Sept. 25, 1926 - Aug. 6, 1930
15	Rt. Hon. RICHARD BEDFORD BENNETT.....	Aug. 7, 1930 - Oct. 23, 1935
16	Rt. Hon. WILLIAM LYON MACKENZIE KING.....	Oct. 23, 1935 - Nov. 15, 1943
17	Rt. Hon. LOUIS STEPHEN ST. LAURENT.....	Nov. 15, 1943 - ...

### 3.—Members of the Seventeenth Ministry as at Sept. 15, 1949

(According to precedence of Ministers)

NOTE.—A complete list of the members of Dominion Ministries from Confederation to 1913 appears in the 1912 Year Book, pp. 422-429. Later Ministries will be found in subsequent editions of the Year Book. Parliamentary Assistants to the Cabinet Ministers are given in footnotes to Table 9.

Office	Occupant	Date of Appointment <sup>1</sup>
Prime Minister and President of the Privy Council.....	Rt. Hon. LOUIS STEPHEN ST. LAURENT, K.C.	(Dec. 10, 1941 Nov. 15, 1948)
Minister of Trade and Commerce.....	Rt. Hon. CLARENCE DECATUR HOWE.....	(Oct. 23, 1935 Jan. 19, 1948)
Minister of Agriculture.....	Rt. Hon. JAMES GARFIELD GARDINER.....	(Oct. 28, 1935 Jan. 23, 1939)
Member of the Administration and Minister without Portfolio.....	Hon. JAMES ANGUS MACKINNON.....	(Apr. 1, 1949 July 8, 1940)
Minister of Mines and Resources.....	Hon. COLIN WILLIAM GEORGE GIBSON, M.C., K.C., V.D.	(Apr. 1, 1949 Dec. 15, 1941)
Minister of Labour.....	Hon. HUMPHREY MITCHELL.....	(Oct. 6, 1942 Oct. 13, 1944)
Minister of Public Works.....	Hon. ALPHONSE FOURNIER, K.C.	(Dec. 12, 1946 Apr. 18, 1945)
Minister of National Defence.....	Hon. BROOKE CLAXTON, K.C.	(Dec. 12, 1946 Apr. 18, 1945)
Minister of Transport.....	Hon. LIONEL CHEVRIER, K.C.	(Dec. 12, 1946 Apr. 18, 1945)
Minister of National Health and Welfare.....	Hon. PAUL JOSEPH JAMES MARTIN, K.C.	(Dec. 12, 1946 Dec. 10, 1946)
Minister of Finance and Receiver General....	Hon. DOUGLAS CHARLES ABBOTT, K.C.	(Apr. 18, 1945 Apr. 18, 1946)
Minister of National Revenue.....	Hon. JAMES JOSEPH MCCANN, M.D.	(Apr. 18, 1945 Aug. 29, 1945)
Member of the Administration and Minister without Portfolio.....	Hon. WISHART McLEA ROBERTSON.....	(Sept. 2, 1947 Jan. 19, 1948)
Minister of Veterans Affairs.....	Hon. MILTON FOWLER GREGG, V.C.	(June 11, 1948 Sept. 10, 1948)
Minister of Fisheries.....	Hon. ROBERT WELLINGTON MAYHEW.....	(Nov. 15, 1948 Nov. 15, 1948)
Secretary of State for External Affairs.....	Hon. LESTER BOWLES PEARSON.....	(Nov. 15, 1948 Apr. 1, 1949)
Minister of Justice and Attorney General.....	Hon. STUART SINCLAIR GARSON.....	(Nov. 15, 1948 Apr. 1, 1949)
Minister of Reconstruction and Supply.....	Hon. ROBERT HENRY WINTERS.....	(Apr. 1, 1949 Aug. 24, 1949)
Secretary of State of Canada.....	Hon. F. GORDON BRADLEY.....	(Aug. 24, 1949 Aug. 24, 1949)
Solicitor General of Canada.....	Hon. HUGUES LAPORTE.....	(Aug. 24, 1949 Aug. 24, 1949)
Postmaster General.....	Hon. GABRIEL EDOUARD RINFRET.....	(Aug. 24, 1949 Aug. 24, 1949)

<sup>1</sup> Where two dates are shown, the first indicates the date of first appointment as a Minister of the Crown and the second the date of appointment to the portfolio held at present.

#### 4.—Members of the King's Privy Council for Canada, According to Seniority Therein,<sup>1</sup> as at Sept. 15, 1949

NOTE.—In this list the prefix Rt. Hon. indicates membership in the United Kingdom Privy Council. Besides those mentioned in this list, the Rt. Hon. Sir Lyman P. Duff, G.C.M.G., retired Chief Justice of Canada, and the Rt. Hon. Thibaudeau Rinfret, Chief Justice of Canada, are members of the United Kingdom Privy Council.

Name	Date When Sworn In	Name	Date When Sworn In
The Hon. Sir ALLEN BRISTOL	Oct. 16, 1905	The Rt. Hon. JAMES LORIMER	Oct. 23, 1935
AYLESWORTH		LSLEY	Oct. 23, 1935
The Rt. Hon. WILLIAM LYON		The Hon. JOSEPH ENOIL MICHAUD	
MACKENZIE KING	June 2, 1909	The Rt. Hon. CLARENCE DECATUR	Oct. 23, 1935
The Rt. Hon. Sir THOMAS WHITE	Oct. 10, 1911	HOWE <sup>2</sup>	
The Rt. Hon. ARTHUR MEIGHEN	Oct. 2, 1915	The Rt. Hon. JAMES GARFIELD	Nov. 4, 1935
The Hon. ESIOFF LEON PATENAUDE	Oct. 6, 1915	GARDINER <sup>2</sup>	
The Rt. Hon. WILLIAM MORRIS		The Hon. JAMES ANGUS MAC-	
HUGHES	Feb. 18, 1916	KINNON <sup>2</sup>	Jan. 23, 1939
The Hon. ALBERT SEVIGNY	Jan. 8, 1917	The Hon. PIERRE FRANÇOIS	
The Hon. CHARLES COLQUHOUN		CASGRAIN	May 10, 1940
BALLANTYNE	Oct. 3, 1917	The Hon. COLIN WILLIAM GEORGE	
The Hon. JAMES ALEXANDER		GIBSON <sup>2</sup>	July 8, 1940
CALDER	Oct. 12, 1917	The Hon. WILLIAM PATE MULOCK	July 8, 1940
The Hon. SYDNEY CHILTON		The Hon. ANGUS LEWIS MAC-	
MEWURN	Oct. 12, 1917	DONALD	July 12, 1940
The Hon. THOMAS ALEXANDER		The Hon. LEIGHTON GOLDIE MC-	
CREER	Oct. 12, 1917	CARTHY	Mar. 4, 1941
The Hon. Sir HENRY LUMLEY		The Hon. JOSEPH THORARINN	
DRAYTON	Aug. 2, 1919	THORSON	June 11, 1941
The Hon. FLEMING BLANCHARD		The Hon. WILLIAM FERDINAND	
MCCURDY	July 13, 1920	ALPHONSE TURGEON	Oct. 8, 1941
The Hon. HENRY HERBERT		The Rt. Hon. LOUIS STEPHEN ST.	
STEVENS	Sept. 21, 1921	LAURENT <sup>2</sup>	Dec. 10, 1941
The Hon. ARTHUR BLISS COPP	Dec. 29, 1921	The Hon. HUMPHREY MITCHELL <sup>2</sup>	Dec. 15, 1941
The Hon. JOHN EWAN SINCLAIR	Dec. 30, 1921	The Rt. Hon. WINSTON LEONARD	
The Hon. JAMES HORACE KING	Feb. 3, 1922	SPENCER CHURCHILL	Dec. 29, 1941
The Hon. EDWARD JAMES		The Hon. ALPHONSE FOURNIER <sup>2</sup>	Oct. 7, 1942
MCMURRAY	Nov. 14, 1923	The Hon. ERNEST BERTRAND	Oct. 7, 1942
The Rt. Hon. CHARLES VINCENT		The Hon. LEO RICHER LAFLECHE	Oct. 7, 1942
MASSEY	Sept. 16, 1925	The Hon. BROOKE CLAXTON <sup>2</sup>	Oct. 13, 1944
The Hon. CHARLES AVERY		The Hon. ANDREW GEORGE LATTA	
DUNNING	Mar. 1, 1926	MCAUGHY	Nov. 2, 1944
The Hon. GEORGE BURPEE JONES	July 13, 1926	The Hon. JAMES ALLISON GLEN	Apr. 18, 1945
The Hon. RAYMOND DUCHARME		The Hon. JOSEPH ARTHUR JEAN	Apr. 18, 1945
MORAND	July 13, 1926	The Hon. LIONEL CHVRIER <sup>2</sup>	Apr. 18, 1945
The Hon. EUGENE PAQUET	Aug. 23, 1926	The Hon. PAUL JOSEPH JAMES	
The Hon. LUCIEN CANNON	Sept. 25, 1926	MARTIN <sup>2</sup>	Apr. 18, 1945
The Hon. WILLIAM DUAM EULER	Sept. 25, 1926	The Hon. DOUGLAS CHARLES	
H.R.H. The DUKE OF WINDSOR	Aug. 2, 1927	ABROTT <sup>2</sup>	Apr. 18, 1945
The Hon. CYRUS MACMILLAN	June 17, 1930	The Hon. JAMES JOSEPH MCCANN <sup>2</sup>	Apr. 18, 1945
The Hon. ARTHUR CHARLES		The Hon. DAVID LAURENCE	
HARDY	July 31, 1930	MACLAREN	Apr. 18, 1945
The Hon. HUGH ALEXANDER		The Hon. THOMAS VIE	July 19, 1945
STEWART	Aug. 7, 1930	The Hon. WISHART MCLEA	
The Hon. ALFRED DURANLEAU	Aug. 7, 1930	ROBERTSON <sup>2</sup>	Sept. 4, 1945
The Hon. THOMAS GEROW MURPHY	Aug. 7, 1930	The Hon. MILTON FOWLER GREGG <sup>2</sup>	Sept. 2, 1947
The Hon. WILLIAM DUNCAN		The Hon. ROBERT WELLINGTON	
HERRIDGE	June 17, 1931	MAYHEW <sup>2</sup>	June 11, 1948
The Hon. ROBERT CHARLES		The Hon. LESTER BOWLES PEARSON <sup>2</sup>	Sept. 10, 1948
MATTHEWS	Dec. 6, 1933	The Hon. STUART SINCLAIR	
The Hon. GROTE STIRLING	Nov. 17, 1934	GARSON <sup>2</sup>	Nov. 15, 1948
The Hon. GEORGE REGINALD		The Hon. ROBERT HENRY WINTERS <sup>2</sup>	Nov. 15, 1948
GEARY	Aug. 14, 1935	The Hon. FREDERICK GORDON	
The Hon. JAMES EARL LAWSON	Aug. 14, 1935	BRADLEY <sup>2</sup>	Apr. 1, 1949
The Hon. SAMUEL GOBEL	Aug. 14, 1935	The Hon. CHARLES JOSHT	
The Hon. LUCIEN HENRI GENDRON	Aug. 30, 1935	BURCHELL	Apr. 1, 1949
The Hon. WILLIAM EARL ROWE	Aug. 30, 1935	The Hon. GASPARD FAUTEUX	May 16, 1949
The Hon. ONESIME GAGNON	Aug. 30, 1935	The Hon. HUGUES LAPOINTE <sup>2</sup>	Aug. 25, 1949
The Hon. CHARLES GAVAN POWER	Oct. 23, 1935	The Hon. GABRIEL EDOUARD	
		RINFRET <sup>2</sup>	Aug. 25, 1949

<sup>1</sup> As in the case of Privy Councillors of the United Kingdom, members of His Majesty's Privy Council for Canada take rank *inter se* according to the dates of their being sworn in.

<sup>2</sup> Ranks as a member of the Cabinet.



## 5.—Duration and Sessions of Parliaments, 1936-49

NOTE.—Similar information for the 1st to the 12th Parliaments, covering the period from Confederation to 1917, will be found at p. 46 of the 1940 Year Book; and that for the 13th to 17th Parliaments at p. 53 of the 1945 edition.

Order of Parliament	Session	Date of Opening	Date of Prorogation	Days of Session	Sitting Days of House of Commons	Date of Election, Writs Returnable, Dissolution, and Length of Parliament <sup>1,2</sup>
18th Parliament.	1st	Feb. 6, 1936	June 23, 1936	139	91	Oct. 14, 1935 <sup>3</sup> Nov. 9, 1935 <sup>4</sup> Jan. 25, 1940 <sup>5</sup> 4 y., 2 m., 16 d.
	2nd	Jan. 14, 1937	Apr. 10, 1937	87	62	
	3rd	Jan. 27, 1938	July 1, 1938	156	102	
	4th	Jan. 12, 1939	June 3, 1939	143	103	
	5th	Sept. 7, 1939	Sept. 13, 1939	7	6	
	6th	Jan. 25, 1940	Jan. 25, 1940	1	1	
19th Parliament <sup>6</sup>	1st	May 16, 1940	Nov. 5, 1940	174	61	Mar. 26, 1940 <sup>3</sup> Apr. 17, 1940 <sup>4</sup> Apr. 16, 1945 <sup>5</sup> 5 y.
	2nd	Nov. 7, 1940	Jan. 21, 1942	441	105	
	3rd	Jan. 22, 1942	Jan. 27, 1943	371	124	
	4th	Jan. 28, 1943	Jan. 26, 1944	364	120	
	5th	Jan. 27, 1944	Jan. 31, 1945	371	136	
	6th	Mar. 19, 1945	Apr. 16, 1945	29	19	
20th Parliament.	1st	Sept. 6, 1945	Dec. 18, 1945	104	76	June 11, 1945 <sup>3</sup> Aug. 9, 1945 <sup>4</sup> Apr. 30, 1949 <sup>5</sup> 3 y., 8 m., 22 d.
	2nd	Mar. 14, 1946	Aug. 31, 1946	171	118	
	3rd	Jan. 30, 1947	July 17, 1947	169	115	
	4th	Dec. 5, 1947	June 30, 1948	209	119	
	5th	Jan. 26, 1949	Apr. 30, 1949	95	59	
21st Parliament	1st	Sept. 15, 1949	7	8	7	June 27, 1949 <sup>3</sup>

<sup>1</sup> The ordinary legal limit of duration for each Parliament is five years.

<sup>2</sup> Duration of Parliament in years, months and days.

The life of a Parliament is counted from the date of return of election writs to the date of dissolution, both days inclusive (B.N.A. Act, Sect. 50).

<sup>3</sup> Date of general election.

<sup>4</sup> Writs returnable.

<sup>5</sup> Dissolution of Parliament.

<sup>6</sup> During the war years

Parliament was kept in almost continuous session. When prorogation took place it was followed immediately by a new session. During long adjournments provision was made whereby the Speaker could reconvene Parliament before the date previously set for reassembly.

<sup>7</sup> Life of Legislature not expired at time of going to press.

<sup>8</sup> Life of First Session not expired at time of going to press.

## Subsection 2.—The Legislature

The Legislative Branch of government, consisting of the Senate and House of Commons, is responsible for the enactment of all legislation. Bills may originate in either the Senate or the House subject to the provisions of Sect. 53 of the British North America Act, 1867, which restricts to the House of Commons the introduction of bills for the appropriation of any part of the public revenue or the imposition of any tax or impost. Bills must pass both Houses and receive the Royal Assent before becoming law. In practice most Public Bills originate in the House of Commons, although there has been a marked increase recently in the introduction of Public Bills in the Senate. For some years past all Private Bills have originated in the Senate.

**The Senate.**—From an original membership of 72 at Confederation, the Senate, through the addition of new provinces and the general growth of the Dominion, now has 102 members, the latest change in representation having been made on the admission of Newfoundland to Confederation in 1949. The growth of representation in the Senate is traced at pp. 47-49 of the 1940 edition of the Year Book and is summarized, by provinces, in Table 6. Members of the Senate receive a sessional indemnity of \$4,000. In addition they receive an annual expense allowance of \$2,000 paid at the end of each calendar year.



## 6.—Growth of Representation in the Senate, 1867-1949

Province	1867	1870	1871	1873	1882	1887	1892	1903	1905	1915-1948	1949
Ontario.....	24	24	24	24	24	24	24	24	24	24	24
Quebec.....	24	24	24	24	24	24	24	24	24	24	24
Maritime Provinces.....	24	24	24	24	24	24	24	24	24	24	30
Newfoundland.....	...	...	...	...	...	...	...	...	...	...	6
Nova Scotia.....	12	12	12	10	10	10	10	10	10	10	10
New Brunswick.....	12	12	12	10	10	10	10	10	10	10	10
Prince Edward Island.....	...	...	...	4	4	4	4	4	4	4	4
Western Provinces.....	...	...	...	5	5	5	5	5	5	5	5
Manitoba.....	2	2	2	3	3	3	3	3	3	3	3
British Columbia.....	...	...	...	3	3	3	3	3	3	3	3
Saskatchewan.....	...	...	...	...	...	2	2	4	4	4	4
Alberta.....	...	...	...	...	...	...	...	...	...	...	...
<b>Totals.....</b>	<b>72</b>	<b>74</b>	<b>77</b>	<b>77</b>	<b>78</b>	<b>80</b>	<b>81</b>	<b>83</b>	<b>87</b>	<b>96</b>	<b>102</b>

## 7.—Representation in the Senate, by Provinces, as at Sept. 15, 1949

Speaker.....The Hon. ELIE BEAUREGARD, K.C.

Clerk of the Senate and Clerk of

Parliaments.....LESLIE CLARE MOYER, D.S.O., K.C., B.A.

Leader of the Government.....The Hon. WISHART MCLEA ROBERTSON, P.C.

Leader of the Opposition.....The Hon. JOHN THOMAS HAIG, K.C.

(Ranked according to seniority, by provinces. All Senators are entitled to the designation "The Honourable".)

Province and Name of Senator	P.O. Address	Province and Name of Senator	P.O. Address
<b>Newfoundland—</b> (6 Senators—3 vacancies)		<b>Quebec—(24 Senators)</b>	
BAIRD, ALEXANDER BOYD.....	St. John's	RAYMOND, DONAT.....	Montreal
PETTON, RAY.....	St. John's	BALANTYNE, CHARLES COLQUHOUN, P.C.....	Montreal
PENNY, GEORGE JOSEPH.....	Ramea	MORAUD, LUCIEN.....	Quebec
		PAQUET, EUGENE, P.C.....	Rimouski
		HUGESSEN, ADRIAN KNATCHBULL.....	Montreal
		FAFARD, J. FERNAND.....	L'Islet
<b>Prince Edward Island—</b> (4 Senators)		HOWARD, CHARLES BENJAMIN	Sherbrooke
SINCLAIR, JOHN EWEN, P.C....	Emerald	BEAUREGARD, ELIE.....	Montreal
MCINTYRE, JAMES PETER.....	Mount Stewart	DAVID, ATHANASE.....	Montreal
GRANT, THOMAS VINCENT, M.D.....	Montague	ST. PERE, EDOUARD CHARLES..	Montreal
BARBOUR, GEORGE H.....	Charlottetown	HUSHION, WILLIAM JAMES.....	Westmount
		GOUTIN, LEON MERCIER.....	Montreal
		VIEN, THOMAS, P.C.....	Outremont
		DUTREMBLAY, PAMPHILE REAL	Montreal
<b>Nova Scotia—</b> (10 Senators—2 vacancies)		BOUCHARD, TELESPHORE	
DENNIS, WILLIAM HENRY.....	Halifax	DAMIEN.....	St. Hyacinthe
QUINN, FELIX PATRICK.....	Bedford	DAIGLE, ARMAND.....	Montreal
DUFF, WILLIAM.....	Lunenburg	LESAGE, JOSEPH ARTHUR.....	Quebec
MACLENNAN, DONALD.....	Port Hawkesbury	VAILLANCOURT, CYRILLE.....	Lévis
ROBERTSON, WISHART MCLEA, P.C.....	Bedford	NICOL, JACOB.....	Sherbrooke
KINLEY, JOHN JAMES.....	Lunenburg	FERLAND, CHARLES EDOUARD..	Joliette
MCDONALD, JOHN ALEXANDER..	Halifax	DUPUIS, VINCENT.....	Longueuil
COMEAU, JOSEPH WILLIE.....	Comeauville	DESSUREAULT, JEAN MARIE....	Quebec
		BOUFFARD, PAUL HENRI.....	Quebec
		GODBOUT, JOSEPH ADELARD....	Frelighsburg
<b>New Brunswick—(10 Senators)</b>		<b>Ontario—</b> (24 Senators—2 vacancies)	
BOURQUE, THOMAS JEAN.....	Richibucto	HARDY, ARTHUR CHARLES, P.C.....	Brockville
COPP, ARTHUR BLISS, P.C.....	Sackville	AYLESWORTH, SIR ALLEN	
JONES, GEORGE BUREE, P.C....	Apoahqui	BRISTOL, P.C., K.C.M.G.....	Toronto
LEGER, ANTOINE JOSEPH.....	Moncton	MCGUIRE, WILLIAM HENRY....	Toronto
VENIOT, CLARENCE JOSEPH.....	Bathurst	LACASSE, GUSTAVE.....	Tecumseh
MCLEAN, ALEXANDER NEIL.....	Saint John	WILSON, CARINE REAY.....	Ottawa
PIRIE, FREDERICK WILLIAM....	Grand Falls	FALLIS, IVA CAMPBELL.....	Peterborough
BURCHILL, GEORGE PERCIVAL..	South Nelson	LAMBERT, NORMAN PLATT.....	Ottawa
EMMERSON, HENRY READ.....	Dorchester		
DOONE, J. J. HAYES.....	Black's Harbour		

## 7.—Representation in the Senate, by Provinces, as at Sept. 15, 1949—concluded

Province and Name of Senator	P.O. Address	Province and Name of Senator	P.O. Address
<b>Ontario—concluded</b>		<b>Saskatchewan—(6 Senators)</b>	
HAYDEN, SALTER ADRIAN.....	Toronto	CALDER, JAMES ALEXANDER, P.C.....	Regina
PATERSON, NORMAN MCLEOD...	Fort William	MARCOTTE, ARTHUR.....	Ponteix
DUFFUS, JOSEPH JAMES.....	Peterborough	HORNER, RALPH BYRON.....	Blaine Lake
EULER, WILLIAM DAUM, P.C....	Kitchener	ASELTINE, WALTER MORLEY....	Rosetown
DAVIES, WILLIAM RUPERT.....	Kingston	STEVENSON, JOHN JAMES.....	Regina
CAMPBELL, GORDON PETER.....	Toronto	WOOD, THOMAS H.....	Regina
TAYLOR, WILLIAM HORACE.....	Scotland		
BISHOP, CHARLES LAWRENCE...	Ottawa	<b>Alberta—(6 Senators)</b>	
ROEBUCK, ARTHUR WENTWORTH.....	Toronto	BUCHANAN, WILLIAM ASHBURY	Lethbridge
HURTUBISE, JOSEPH RAUL.....	Sudbury	BLAIS, ARISTIDE.....	Edmonton
FARQUHAR, THOMAS.....	Little Current	GERSHAW, FRED WILLIAM.....	Medicine Hat
FOGO, JAMES GORDON.....	Ottawa	ROSS, GEORGE HENRY.....	Calgary
FRASER, WILLIAM ALEXANDER...	Trenton	MACKINNON, JAMES ANGUS, P.C.....	Edmonton
GOLDING, WILLIAM HENRY.....	Seaforth	STAMBAUGH, J. WESLEY.....	Bruce
GLADSTONE, ROBERT WILLIAM...	Guelph		
<b>Manitoba—(6 Senators)</b>		<b>British Columbia—</b>	
MULLINS, HENRY ALFRED.....	Winnipeg	(6 Senators—1 vacancy)	
HAIG, JOHN THOMAS.....	Winnipeg	KING, JAMES HORACE, P.C.	Victoria
BEAUBIEN, ARTHUR LUCIEN....	St. Jean Baptiste	FARRIS, JOHN WALLACE DE BEQUE.....	Vancouver
CERRAR, THOMAS ALEXANDER, P.C.....	Winnipeg	TURGEON, JAMES GRAY.....	Vancouver
HOWDEN, JOHN POWER.....	Norwood Grove	MCKEEN, STANLEY STEWART...	Vancouver
DAVIS, JOHN CASWELL.....	St. Boniface	REID, THOMAS.....	New Westminster

**The House of Commons.**—In Sect. 37 of the British North America Act of 1867 it was provided that "The House of Commons shall, subject to the provisions of this Act, consist of one hundred and eighty-one members, of whom eighty-two shall be elected for Ontario, sixty-five for Quebec, nineteen for Nova Scotia, and fifteen for New Brunswick". Further, under Sect. 51, it was enacted that, after the completion of the Census of 1871 and of each subsequent decennial census, the representation of the four provinces should be readjusted by such authority, in such manner, and from such time, as the Parliament of Canada provided, subject to and according to certain rules set out in the original Act.

The representation of the provinces in the Dominion Parliament as at 1867 and the readjustments that took place with the admission of the newer provinces into Confederation and with each decennial census up to 1931, are outlined at pp. 57-59 of the 1946 Year Book. The number of representatives of each province elected at each of the 21 general elections since Confederation is given in Table 8.

## 8.—Representation in the House of Commons as at Dominion General Elections 1867-1949

Province or Territory	1867	1872	1874 1878	1882	1887 1891	1896 1900	1904	1908 1911	1917 1921	1925 1926 1930	1935 1940 1945	1949
Ontario.....	82	88	88	92	92	92	86	86	82	82	82	83
Quebec.....	65	65	65	65	65	65	65	65	65	65	65	73
Nova Scotia.....	19	21	21	21	21	20	18	18	16	14	12	13
New Brunswick.....	15	16	16	16	16	14	13	13	11	11	10	10
Manitoba.....	...	4	4	5	5	7	10	10	15	17	17	16
British Columbia.....	...	6	6	6	6	6	7	7	13	14	16	18
Prince Edward Island...	...	...	6	6	6	5	4	4	4	4	4	4
Saskatchewan.....	...	...	...	...	4	4	10	10	16	21	21	20
Alberta.....	...	...	...	...	...	...	1	7	12	16	17	17
Yukon.....	...	...	...	...	...	...	1	1	1	1	1	1
Newfoundland.....	...	...	...	...	...	...	...	...	...	...	...	7
<b>Totals.....</b>	<b>181</b>	<b>200</b>	<b>206</b>	<b>211</b>	<b>215</b>	<b>213</b>	<b>214</b>	<b>221</b>	<b>235</b>	<b>245</b>	<b>245</b>	<b>262</b>

*Redistribution of Parliamentary Constituencies, 1947.*—After the completion of the 1941 Census the redistribution required by the British North America Act following each decennial census was postponed. A resolution to that effect was presented to Parliament and forwarded to London in the form of an Address to His Majesty the King. His Majesty caused a Bill to be laid before the Parliament of the United Kingdom for the enactment of the provisions of the resolution; this was duly passed through all stages by July 22, 1943. The Bill provided that "notwithstanding anything in the British North America Acts, 1867 to 1940, it shall not be necessary that the representation of the provinces in the House of Commons [Canadian] be readjusted, in consequence of the completion of the decennial census taken in the year One Thousand Nine Hundred and Forty-One, until the first session of the Parliament of Canada commencing after the cessation of hostilities between Canada and the German Reich, the Kingdom of Italy and the Empire of Japan". During the first session of the Twentieth Parliament, the House of Commons and the Senate of Canada petitioned the Imperial Government, requesting an amendment to Section 51 of the British North America Act. As a result, that Section of the Act was repealed and the following substituted therefor:—

- "(1) The number of members of the House of Commons shall be Two hundred and fifty-five and the representation of the provinces therein shall forthwith upon the coming into force of this section and thereafter on the completion of each decennial census be readjusted by such authority, in such manner, and from such time as the Parliament of Canada from time to time provides, subject and according to the following Rules:
- (a) Subject as hereinafter provided, there shall be assigned to each of the provinces a number of members computed by dividing the total population of the provinces by Two hundred and fifty-four and by dividing the population of each province by the quotient so obtained, disregarding, except as hereinafter in this section provided, the remainder if any, after the said process of division.
  - (b) If the total number of members assigned to all the provinces pursuant to Rule One is less than Two hundred and fifty-four, additional members shall be assigned to the provinces (one to a province) having remainders in the computation under Rule One commencing with the province having the largest remainder and continuing with the other provinces in the order of the magnitude of their respective remainders until the total number of members assigned is Two hundred and fifty-four.
  - (c) Notwithstanding anything in this section, if upon completion of a computation under Rules One and Two, the number of members to be assigned to a province is less than the number of senators representing the said province, Rules One and Two shall cease to apply in respect of the said province, and there shall be assigned to the said province a number of members equal to the said number of senators.
  - (d) In the event that Rules One and Two cease to apply in respect of a province then, for the purpose of computing the number of members to be assigned to the provinces in respect of which Rules One and Two continue to apply, the total population of the provinces shall be reduced by the number of the population of the province in respect of which Rules One and Two have ceased to apply and the number Two hundred and fifty-four shall be reduced by the number of members assigned to such province pursuant to Rule Three.
  - (e) Such readjustment shall not take effect until the termination of the then existing parliament.
- "(2) The Yukon Territory as constituted by c. 41 of the Statutes of Canada, 1901, together with any part of Canada not comprised within a province which may from time to time be included therein by the Parliament of Canada for the purposes of representation in parliament, shall be entitled to one member."

Accordingly, by the Representation Act, 1947 (11 Geo. VI, c. 71) the total membership in the House of Commons was increased from 245 to 255 to be effective at the following general election. The representation of the various provinces is shown in Table 8.



Under the terms of a bill, assented to on Feb. 18, 1949, and intituled, An Act to approve the Terms of Union of Newfoundland with Canada, provision was made for the Province of Newfoundland to be represented by seven members in the House of Commons. This brought the number of Members of Parliament up to 262.

**Indemnities and Allowances.**—Members of the House of Commons are paid a sessional indemnity of \$4,000. In addition, they receive \$2,000 as an annual expense allowance, paid at the end of each calendar year. This allowance, except in the case of Ministers of the Crown and the Leader of the Opposition, is not subject to income tax. The remuneration of a Cabinet Minister is \$10,000 a year, the Prime Minister receiving \$15,000, in addition to the sessional indemnity each receives as a Member of Parliament. The Leader of the Opposition also receives \$10,000 a year in addition to his sessional indemnity. Cabinet Ministers are also entitled to a motor-car allowance of \$2,000. The Speakers of the Senate and of the House of Commons receive, besides their sessional indemnity, a salary of \$6,000 and a motor-car allowance of \$1,000 and are also entitled to \$3,000 in lieu of residence. Parliamentary Assistants to the Ministers of the Crown, of whom there were 10 as at Sept. 15, 1949, receive \$4,000 sessional indemnity as Members of Parliament, \$4,000 a year as Parliamentary Assistants and the \$2,000 allowed to all other Members of Parliament.

**9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1949.**

Speaker..... The HON. W. ROSS MACDONALD, K.C.  
 Clerk of the House..... LEON J. RAYMOND, O.B.E.  
 Leader of the Opposition..... GEORGE A. DREW

NOTE.—This information, except the population of constituencies, has been supplied by the Chief Electoral Officer, Ottawa. Party affiliations are unofficial. The vote is summarized by provinces in Table 10, p. 107. The leaders of the political parties are indicated by asterisks(\*) and Parliamentary Assistants by footnotes. Footnotes show changes up to the time of going to press with this part of the Year Book; subsequent changes will be found in Appendix II.

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member <sup>1</sup>	Name of Member	P.O. Address	Party Affiliation
No.	No.	No.	No.	No.			
<b>Newfoundland—</b> (7 members)							
Bonavista.....	43,912	24,411	11,209	9,765	HON. F. G. BRADLEY	Ottawa.....	Lib.
Twillingate.....	41,395	21,870	13,691	12,590	C. W. CARTER.....	St. John's.....	Lib.
Burin-Burgeo.....	44,627	27,592	14,246	12,301	T. G. W. ASHBOURNE	Twillingate.....	Lib.
Grand Falls-White Bay.....	41,143	23,683	13,461	11,930	W. R. KENT.....	Corner Brook...	Lib.
Humber.....	48,811	27,894	18,170	9,912	G. F. HIGGINS.....	St. John's.....	P.C.
St. George's.....	49,788	29,531	20,291	10,344	W. J. BROWNE.....	St. John's.....	P.C.
St. John's East.....	52,143	27,458	14,121	10,929	L. T. STICK.....	Bay Roberts.....	Lib.
St. John's West.....							
Trinity-Conception..							
<b>P. E. Island—</b> (4 members)							
Kings.....	19,415	11,078	9,626	5,079	T. J. KICKHAM.....	Souris.....	Lib.
Prince.....	34,490	19,189	17,140	8,007	J. W. MACNAUGHT <sup>2</sup> ..	Summerside.....	Lib.
Queens.....	41,142	25,505	41,627	10,657	W. C. S. McLURE.....	Charlottetown..	P.C.
				10,652	J. L. DOUGLAS.....	Charlottetown..	Lib.

<sup>1</sup> Successful candidate.

<sup>2</sup> Parliamentary Assistant to the Minister of Fisheries.



9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1949—continued.

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member <sup>1</sup>	Name of Member	P.O. Address	Party Affiliation
	No.	No.	No.	No.			
<b>Nova Scotia—</b>							
(13 members)							
Annapolis-Kings.....	46,612	30,736	26,497	13,203	A. A. ELDERKIN....	Wolfville.....	Lib.
Antigonish-Guysborough.....	26,006	15,307	12,017	7,586	J. R. KIRK.....	Antigonish.....	Lib.
Cape Breton North and Victoria.....	37,656	22,727	16,748	9,461	M. MACLEAN.....	Sydney Mines.....	Lib.
Cape Breton South.....	77,367	44,508	33,374	15,013	C. GILLIS.....	New Aberdeen.....	C.C.F.
Colchester-Hants.....	52,158	33,036	27,722	13,550	F. T. STANFIELD....	Truro.....	P.C.
Cumberland.....	39,476	24,275	19,862	9,850	P. C. BLACK.....	Amherst.....	P.C.
Digby-Yarmouth.....	41,887	26,112	20,716	11,084	T. A. MURRAY KIRK..	Yarmouth.....	Lib.
Halifax.....	122,656	90,803	114,201	33,452	G. B. ISNOR.....	Halifax.....	Lib.
Inverness-Richmond Lunenburg.....	34,864	20,843	15,775	10,584	J. H. DICKEY.....	Halifax.....	Lib.
Pictou.....	32,942	22,050	17,109	8,821	W. F. CARROLL.....	Margaree Forks.....	Lib.
Queens-Shelburne....	40,789	27,152	21,683	10,930	Hon. R. H. WINTERS..	Ottawa.....	Lib.
	25,279	16,036	13,223	6,501	H. B. McCULLOCH....	New Glasgow.....	Lib.
					D. SMITH.....	Liverpool.....	Lib.
<b>New Brunswick—</b>							
(10 members)							
Charlotte.....	22,728	15,361	12,441	6,197	A. W. STUART.....	St. Andrews.....	Lib.
Gloucester.....	49,913	26,819	21,362	14,898	C. T. RICHARD.....	Bathurst.....	Lib.
Kent.....	25,817	13,670	11,854	5,754	A. D. LÉGER.....	Grandigne.....	Lib.
Northumberland.....	38,485	21,356	17,869	9,840	G. R. McWILLIAM....	Newcastle.....	Lib.
Restigouche-Madawaska.....	61,251	33,520	24,587	15,889	B. MICHAUD <sup>2</sup> .....	Campbellton.....	Lib.
Royal.....	34,348	22,137	18,435	9,501	A. J. BROOKS.....	Sussex.....	P.C.
Saint John-Albert....	77,248	54,124	38,691	18,702	D. A. RILEY.....	Saint John.....	Lib.
Victoria-Carleton....	38,382	23,025	19,122	10,429	H. H. HATFIELD.....	St. John.....	P.C.
Westmorland.....	64,486	46,352	36,417	20,652	E. W. GEORGE.....	Upper Sackville....	Lib.
York-Sunbury.....	44,743	30,359	25,099	12,158	Hon. M. F. GREGG....	Ottawa.....	Lib.
<b>Quebec—</b>							
(73 members)							
Argenteuil-Deux-Montagnes.....	39,416	25,359	20,857	10,500	P. VALOIS.....	Lachute.....	Lib.
Beauce.....	47,827	26,204	22,286	10,267	R. POULIN.....	St-Martin-de-Beauce.....	Ind.
Beauharnois.....	35,487	24,463	16,900	11,631	R. CAUCHON.....	Valleyfield.....	Lib.
Bellechasse.....	29,471	15,706	12,630	7,395	L.-P. PICARD.....	Quebec.....	Lib.
Berthier-Maskinongé.....	39,559	23,956	20,210	11,765	J. LANGLOIS.....	St. Justin.....	Lib.
Bonaventure.....	39,196	20,425	17,123	9,802	B. ARSENAULT.....	Quebec.....	Lib.
Brome-Missisquoi....	33,927	21,552	15,926	8,831	H.-A. GOSSELIN.....	Farnham.....	Lib.
Chambly-Rouville....	45,698	45,348	33,955	20,946	R. PINARD.....	Montreal.....	Lib.
Champlain.....	42,666	25,945	21,266	11,663	J.-L. ROCHFORD....	Cap-de-la-Madeleine....	Lib.
Chapleau.....	43,570	26,593	19,593	11,304	D. GOURD.....	Amos.....	Lib.
Charlevoix.....	38,231	21,111	16,890	9,543	A. MALTAIS.....	Sillery.....	Lib.
Châteauguay-Huntingdon-Laprairie....	37,175	22,105	17,191	9,986	D.-E. BLACK.....	Aubrey.....	Lib.
Chicoutimi.....	41,314	25,920	21,894	10,252	P.-E. GAGNON.....	Bagotville.....	Ind.
Compton-Frontenac....	40,368	21,878	17,760	10,764	J.-A. BLANCHETTE <sup>3</sup> ..	Chartierville.....	Lib.
Dorchester.....	32,882	17,659	14,864	6,991	L.-D. TREMPLAY....	St. Malachie.....	Lib.
Drummond-Arthabaska.....	54,123	36,666	23,192	16,899	A. CLOUTIER.....	Drummondville....	Lib.
Gaspé.....	48,628	26,515	22,368	12,567	J.-G. L. LANGLOIS...	Quebec.....	Lib.
Gatineau.....	32,898	19,381	15,148	9,960	L.-J. RAYMOND <sup>4</sup> ....	Maniwaki.....	Lib.
Hull.....	50,024	34,923	28,515	18,331	Hon. A. FOURNIER....	Ottawa.....	Lib.
Îles-de-la-Madeleine..	8,940	4,690	4,394	2,203	C.-A.-D. CANNON....	Quebec.....	Lib.
Joliette - L'Assomption-Montcalm.....	63,462	40,367	32,936	18,685	G.-E. LAPALME.....	Joliette.....	Lib.
Kamouraska.....	32,741	17,756	11,015	7,792	E. MARQUIS <sup>5</sup> .....	Quebec.....	Lib.
Labelle.....	39,083	21,969	18,117	8,701	H. COURTEMANCEE...	Montreal.....	P.C.
Lac St. Jean.....	29,131	15,017	13,173	7,084	A. GAUTHIER.....	St. Joseph d'Alma.....	Lib.

<sup>1</sup> Successful candidate.

<sup>2</sup> Died Aug. 29, 1949, and his seat remained vacant at Sept. 15, 1949.

<sup>3</sup> Parliamentary Assistant to the Minister of National Defence.

<sup>4</sup> Appointed Clerk of the House of Commons, Aug. 16, 1949, and his seat remained vacant at Sept. 15, 1949.

<sup>5</sup> Appointed to Superior Court at Quebec, Aug. 24, 1949 and his seat remained vacant at Sept. 15, 1949.

**9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1949—continued.**

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member <sup>1</sup>	Name of Member	P.O. Address	Party Affiliation
	No.	No.	No.	No.			
<b>Quebec—concluded</b>							
Lapointe.....	37,567	25,238	20,920	10,275	J. GAUTHIER.....	Jonquière.....	Lib.
Lévis.....	35,951	23,324	19,469	11,752	M. BOURGET.....	Lauzon.....	Lib.
Lotbinière.....	35,452	18,210	15,764	8,849	Hon. H. LAPOINTE.....	Ottawa.....	Lib.
Matapédia-Matane.....	53,054	28,129	23,112	11,546	A.-P. CÔTÉ.....	Ottawa.....	Lib.
Mégantic.....	50,910	27,288	22,897	13,273	J. LAFONTAINE.....	Thetford Mines.....	Lib.
Montmagny-L'Islet.....	33,394	19,434	13,299	10,004	J. LESAGE.....	Quebec.....	Lib.
Nicolet-Yamaska.....	43,892	24,462	20,073	10,208	M. BOISVERT.....	Quebec.....	Lib.
Pontiac-Témiscamingue.....	37,085	22,204	18,067	7,817	J. H. PROUDFOOT.....	Fort Coulonge.....	Lib.
Portneuf.....	39,769	23,545	18,689	10,932	P. GAUTHIER.....	Deschambault.....	Lib.
Quebec East.....	67,559	45,311	35,389	25,832	Rt. Hon. L.-S. St. LAURENT.....	Ottawa.....	Lib.
Quebec South.....	43,725	34,358	26,568	19,383	Hon. C. G. POWER.....	Quebec.....	Lib.
Quebec West.....	49,577	30,492	23,047	12,391	C. PARENT.....	Quebec.....	Lib.
Quebec-Montmorency.....	47,844	33,369	26,033	16,829	W. LACROIX.....	Quebec.....	Lib.
Richelieu-Verchères.....	34,444	24,060	19,365	12,795	G. COURNOYER.....	Sorel.....	Lib.
Richmond-Wolfé.....	46,437	26,181	20,230	13,621	E.-O. GINGRAS.....	Marbleton.....	Lib.
Rimouski.....	51,360	30,014	24,375	11,708	G. BELZILE <sup>2</sup> .....	Rimouski.....	Lib.
Roberval.....	35,175	19,117	16,375	8,103	J.-A. DION.....	Roberval.....	Lib.
St. Hyacinthe-Bagot.....	47,899	30,491	16,953	14,702	J. FONTAINE.....	St. Hyacinthe.....	Lib.
St. Jean-Iberville.....	37,360	25,241	18,323	12,823	A. CÔTÉ.....	St. Jean.....	Lib.
Napierville.....	51,804	35,326	28,123	13,898	J.-A. RICHARD.....	Shawinigan Falls.....	Lib.
Saguenay.....	28,856	16,262	12,782	6,110	L. BRISSON.....	La Malbaie.....	Lib.
Shefford.....	42,844	27,845	22,074	12,970	M. BOIVIN.....	Granby.....	Lib.
Sherbrooke.....	42,466	31,770	24,813	12,116	M. GINGUES.....	Sherbrooke.....	Lib.
Stanstead.....	31,992	21,725	16,902	7,735	L.-E. ROBERGE.....	Rock Island.....	Lib.
Témiscouata.....	49,965	26,621	16,799	11,648	J.-F. POULIOT.....	Rivière-du-Loup.....	Lib.
Terrebonne.....	47,454	35,741	27,702	18,304	L. BERTRAND.....	Ste. Thérèse.....	Lib.
Three-Rivers.....	52,061	31,633	25,883	10,015	L. BALCER.....	Trois-Rivières.....	P.C.
Vaudreuil-Soulanges.....	22,498	14,887	11,404	7,622	L.-R. BEAUDOIN.....	Hudson.....	Lib.
Villeneuve.....	49,235	33,127	26,128	13,623	A. DUMAS.....	Malartic.....	Lib.
<b>Island of Montreal and Ile Jesus—</b>							
Cartier.....	63,167	37,182	23,213	11,993	M. HARTT.....	Montreal.....	Lib.
Hochelaga.....	66,368	40,507	26,622	17,642	R. EUDES.....	Montreal.....	Lib.
Jacques-Cartier.....	41,759	34,734	25,359	15,298	E. MARIÉ <sup>3</sup> .....	Pointe Claire.....	Lib.
Lafontaine.....	57,515	36,886	25,162	12,883	J.-G. RATELLE.....	Montreal.....	Lib.
Laurier.....	54,142	35,316	21,348	15,578	Hon. E. BERTRAND <sup>4</sup> .....	Outremont.....	Lib.
Laval.....	50,302	40,464	28,564	18,202	L. DEMERS.....	St. Laurent.....	Lib.
Maisonneuve-Rosemont.....	65,714	45,525	30,941	20,522	S. FOURNIER.....	Montreal.....	Lib.
Mercier.....	50,735	39,930	26,735	17,041	Hon. J. JEAN <sup>5</sup> .....	Point aux Trembles.....	Lib.
Mount Royal.....	48,963	50,540	34,521	21,653	A. A. MACNAUGHTON.....	Montreal.....	Lib.
Notre-Dame-de-Grâce.....	57,485	43,291	31,445	19,499	F. P. WHITMAN.....	Montreal.....	Lib.
Outremont-St. Jean.....	54,492	35,555	21,615	16,215	Hon. G. E. RINFRET.....	Ottawa.....	Lib.
Papineau.....	45,958	37,182	26,627	12,611	C. HOUDE.....	Montreal.....	Ind.
St. Ann.....	48,929	29,204	20,456	14,528	T. P. HEALY.....	Montreal.....	Lib.
St. Antoine-Westmount.....	61,291	46,570	33,138	21,399	Hon. D. C. ARBOTT.....	Ottawa.....	Lib.
St. Denis.....	68,398	45,678	29,555	18,866	A. DENIS.....	Montreal.....	Lib.
St. Henry.....	59,679	37,583	25,504	16,313	J.-A. BONNIER.....	Montreal.....	Lib.
St. James.....	68,082	49,862	29,274	18,705	R. BEAUDRY.....	Montreal.....	Lib.
St. Laurent-St. Georges.....	49,015	37,545	22,445	15,104	Hon. B. CLAXTON.....	Ottawa.....	Lib.
Ste. Marie.....	56,109	35,657	22,042	13,773	Hon. G. FAUTEUX.....	Montreal.....	Lib.
Verdun-La Salle.....	70,328	50,789	36,186	24,902	P.-E. CÔTÉ <sup>5</sup> .....	Verdun.....	Lib.

<sup>1</sup> Successful candidate.<sup>2</sup> Parliamentary Assistant to the Minister of Finance.<sup>3</sup> Appointed to Superior Court at Montreal, Aug. 24, 1949, and his seat remained vacant at Sept. 15, 1949.<sup>4</sup> Appointed to Court of King's Bench at Montreal, Aug. 24, 1949, and his seat remained vacant at Sept. 15, 1949.<sup>5</sup> Parliamentary Assistant to the Minister of Labour.

9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1949—continued.

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member <sup>1</sup>	Name of Member	P.O. Address	Party Affiliation
	No.	No.	No.	No.			
<b>Ontario—</b>							
(83 members)							
Algoma East.....	27,182	16,250	11,376	6,142	Hon. L. B. PEARSON	Ottawa.....	Lib.
Algoma West.....	40,777	27,028	20,094	10,127	G. E. NIXON.....	Sault Ste. Marie	Lib.
Brantford.....	40,071	30,467	23,651	12,565	Hon. W. R. MACDONALD.....	Brantford.....	Lib.
Brant-Wentworth...	28,138	20,844	15,782	6,693	J. A. CHARLTON.....	Paris.....	P.C.
Bruce.....	29,253	18,321	15,084	7,517	D. B. BLUE.....	Ripley.....	Lib.
Carleton.....	53,508	42,294	34,550	18,033	G. A. DREW*.....	Ottawa.....	P.C.
Cochrane.....	33,197	18,632	13,612	6,352	J. A. BRADETTE.....	Cochrane.....	Lib.
Dufferin-Simcoe....	28,940	20,052	13,483	7,639	Hon. W. E. ROWE.....	Newton Robinson	P.C.
Durham.....	25,215	18,155	14,911	6,907	J. M. JAMES.....	Bowmanville.....	Lib.
Elgin.....	46,150	32,291	21,814	10,265	C. D. COYLE.....	Straffordville....	P.C.
Essex East.....	53,457	41,393	32,086	16,709	Hon. P. MARTIN.....	Harrow.....	Lib.
Essex South.....	37,753	25,455	19,713	10,427	S. M. CLARK.....	Windsor.....	Lib.
Essex West.....	82,146	53,986	36,007	15,620	D. F. BROWN.....	Fort William.....	Lib.
Fort William.....	40,578	26,739	21,046	9,569	D. McIVOR.....	Cataract.....	P.C.
Frontenac-Addington	27,496	19,320	15,096	7,724	W. R. AYLESWORTH.	Green Valley.....	Lib.
Glenagarry.....	18,732	10,586	8,748	4,809	W. J. MAJOR.....	Prescott.....	P.C.
Grenville-Dundas..	32,199	21,244	14,156	8,450	A. C. CASSELMAN.....	Markdale.....	Lib.
Grey-Bruce.....	34,830	22,691	17,810	10,508	W. E. HARRIS <sup>2</sup> .....	Meaford.....	Lib.
Grey North.....	34,757	23,711	18,982	9,949	C. E. BENNETT.....	Hagersville.....	P.C.
Haldimand.....	21,854	14,401	11,621	5,414	A. E. CATHERWOOD.	Burlington.....	Lib.
Halton.....	28,515	23,953	19,626	9,546	H. CLEAVER.....	Hamilton.....	Lib.
Hamilton East.....	68,779	48,666	35,707	14,035	T. M. ROSS.....	Ottawa.....	Lib.
Hamilton West.....	59,358	40,982	28,645	12,324	Hon. C. GIBSON.....		
Hastings—							
Peterborough.....	26,894	15,693	12,065	6,578	G. S. WHITE.....	Madoc.....	P.C.
Hastings South.....	43,580	31,109	25,489	13,099	F. S. FOLLWELL.....	Belleville.....	Lib.
Huron North.....	25,524	17,074	14,046	6,986	L. E. CARDIFF.....	Brussels.....	P.C.
Huron-Perth.....	25,636	17,241	14,355	7,000	A. Y. McLEAN.....	Seaforth.....	Lib.
Kenora-Rainy River	47,743	27,984	20,381	11,297	W. M. BENEDICKSON.	Kenora.....	Lib.-Lab.
Kent.....	53,474	35,720	28,610	14,903	B. HUFFMAN.....	Blenheim.....	Lib.
Kingston City.....	33,306	23,787	18,877	10,045	W. J. HENDERSON.....	Kingston.....	Lib.
Lambton-Kent.....	34,909	22,799	18,014	9,674	H. A. MacKENZIE.....	Watford.....	Lib.
Lambton West.....	35,762	28,578	20,931	9,730	J. W. MURPHY.....	Camlachie.....	P.C.
Lanark.....	33,143	22,598	18,393	10,921	W. G. BLAIR.....	Perth.....	P.C.
Leeds.....	36,042	24,243	20,225	10,080	G. T. FULFORD.....	Brockville.....	Lib.
Lincoln.....	65,066	49,952	38,395	17,316	H. P. CAVERS.....	St. Catharines....	Lib.
London.....	64,833	50,495	36,295	16,401	A. JEFFERY.....	London.....	Lib.
Middlesex East.....	37,362	30,041	21,568	9,258	H. O. WHITE.....	Glanworth.....	P.C.
Middlesex West.....	24,971	16,529	13,290	7,938	R. McCUBBIN <sup>3</sup> .....	Strathroy.....	Lib.
Nipissing.....	47,042	28,104	21,838	11,061	J. R. GARLAND.....	North Bay.....	Lib.
Norfolk.....	35,611	23,307	17,743	9,280	R. E. ANDERSON.....	Waterford.....	Lib.
Northumberland...	30,786	21,210	18,019	9,374	F. G. ROBERTSON.....	Cobourg.....	Lib.
Ontario.....	57,425	42,198	32,813	13,412	W. C. THOMSON.....	Pickering.....	Lib.
Ottawa East.....	54,527	37,733	30,223	20,895	J. T. RICHARD.....	Ottawa.....	Lib.
Ottawa West.....	76,607	52,630	42,517	24,295	G. J. McLEATH <sup>4</sup> .....	Ottawa.....	Lib.
Oxford.....	50,974	34,524	26,281	12,481	A. C. MURRAY.....	Woodstock.....	Lib.
Parry Sound—							
Muskoka.....	51,052	31,674	24,182	11,636	W. K. McDONALD...	Sundridge.....	Lib.
Peel.....	31,539	28,993	21,576	10,554	G. GRAYDON.....	Brampton.....	P.C.
Perth.....	42,276	29,022	22,421	10,901	J. N. CORRY.....	Atwood.....	Lib.
Peterborough West..	40,240	31,475	24,686	10,981	G. K. FRASER.....	Lakefield.....	P.C.
Port Arthur.....	50,833	34,716	25,065	12,646	Rt. Hon. C. D. HOWE.....	Ottawa.....	Lib.
Prescott.....	25,261	13,883	11,569	5,380	R. BRUNEAU.....	Hawkesbury.....	Ind.-Lib.
Prince Edward—							
Lennox.....	28,134	19,183	14,362	7,435	G. J. TUSTIN.....	Napanee.....	P.C.
Renfrew North.....	29,876	20,592	16,023	8,358	R. M. WARREN.....	Eganville.....	Lib.
Renfrew South.....	26,874	17,907	14,942	7,909	Hon. J. J. McCANN.	Ottawa.....	Lib.
Russell.....	35,266	25,699	20,366	12,635	J. O. GOUR.....	Casselman.....	Lib.
Simcoe East.....	41,892	26,410	20,675	10,030	W. A. ROBINSON.....	Midland.....	Lib.
Simcoe North.....	28,573	20,634	15,408	7,658	J. H. FERGUSON.....	Collingwood.....	P.C.

<sup>1</sup> Successful candidate. <sup>2</sup> Parliamentary Assistant to the Prime Minister. <sup>3</sup> Parliamentary Assistant to the Minister of Agriculture. <sup>4</sup> Parliamentary Assistant to the Minister of Trade and Commerce.



**9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1949—continued.**

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member <sup>1</sup>	Name of Member	P.O. Address	Party Affiliation
	No.	No.	No.	No.			
<b>Ontario—concluded</b>							
Stormont.....	40,905	26,377	21,136	12,639	Hon. L. CHEVRIER.....	Ottawa.....	Lib.
Sudbury.....	68,548	46,469	35,779	15,636	J. L. GAUTHIER.....	Sudbury.....	Lib.
Timiskaming.....	50,153	26,678	21,209	8,528	W. LITTLE.....	Kirkland Lake.....	Lib.
Timmins.....	47,928	24,961	18,868	7,949	K. A. EYRE.....	Timmins.....	Lib.
Victoria.....	40,922	27,753	21,934	11,061	C. W. HODGSON.....	Haliburton.....	P.C.
Waterloo North.....	60,039	46,260	32,327	17,715	L. O. BREITHAUP.....	Kitchener.....	Lib.
Waterloo South.....	38,681	29,179	22,781	8,740	K. HOMUTH.....	Preston.....	P.C.
Welland.....	93,836	68,304	50,736	23,734	Hon. H. MITCHELL.....	Ottawa.....	Lib.
Wellington North.....	23,605	15,405	12,648	6,056	A. DARROCH.....	Clifford.....	Lib.
Wellington South.....	38,441	27,415	21,990	10,344	H. A. HOSKING.....	Guelph.....	Lib.
Wentworth.....	67,070	60,988	43,470	16,443	F. E. LENNARD.....	Dundas.....	P.C.
York East.....	79,567	60,689	57,732	22,370	R. H. MCGREGOR.....	Toronto.....	P.C.
York North.....	57,269	53,823	39,486	18,964	J. E. SMITH.....	Richmond Hill.....	Lib.
York South.....	72,427	59,110	41,852	15,297	J. W. NOSEWORTHY.....	Toronto.....	C.C.F.
York.....	74,829	67,470	50,801	19,185	R. ADAMSON.....	Port Credit.....	P.C.
<b>City of Toronto—</b>							
Broadview.....	59,454	41,731	28,080	10,507	T. L. CHURCH.....	Toronto.....	P.C.
Danforth.....	44,212	31,991	23,774	9,960	J. H. HARRIS.....	Toronto.....	P.C.
Davenport.....	58,685	42,219	29,495	11,431	P. T. HELLYER.....	Toronto.....	Lib.
Eglinton.....	72,953	53,310	40,888	19,823	D. M. FLEMING.....	Toronto.....	P.C.
Greenwood.....	58,346	40,806	29,759	10,454	J. E. McMILLIN <sup>2</sup> .....	Toronto.....	P.C.
High Park.....	55,656	41,604	30,962	12,216	A. J. P. CAMERON.....	Toronto.....	Lib.
Parkdale.....	54,123	41,239	29,540	12,876	J. HUNTER.....	Toronto.....	Lib.
Rosedale.....	53,404	40,395	27,533	10,835	C. HENRY.....	Toronto.....	Lib.
St. Paul's.....	62,050	52,273	34,063	14,000	J. H. ROONEY.....	Toronto.....	Lib.
Spadina.....	86,431	59,133	39,768	23,652	D. A. CROLL.....	Toronto.....	Lib.
Trinity.....	62,143	41,333	30,340	10,389	L. CONACHER.....	Toronto.....	Lib.
<b>Manitoba—</b>							
<b>(16 members)</b>							
Brandon.....	41,725	27,489	20,519	11,263	J. E. MATTHEWS.....	Brandon.....	Lib.
Churchill.....	39,042	20,736	15,110	6,847	G. D. WEAVER.....	Flin Flon.....	Lib.
Dauphin.....	43,585	22,917	17,698	7,989	W. J. WARD.....	Dauphin.....	Lib.
Lisgar.....	46,833	24,209	16,464	9,190	H. W. WINKLER.....	Morden.....	Lib.
Marquette.....	40,165	22,517	17,222	10,144	Hon. S. S. GARSON.....	Ottawa.....	Lib.
Norquay.....	42,445	20,501	14,126	8,430	R. J. WOOD.....	Teulon.....	Lib.
Portage-Neepawa.....	43,286	24,592	18,400	9,202	W. G. WEIR.....	Carman.....	Lib.
Provencher.....	38,169	17,057	10,940	6,834	R. JUTRAS.....	Letellier.....	Lib.
St. Boniface.....	37,686	26,306	18,993	10,766	F. VIAU.....	Winnipeg.....	Lib.
Selkirk.....	45,765	30,248	21,754	7,819	W. BRYCE.....	Selkirk.....	C.C.F.
Souris.....	27,240	16,061	12,757	6,144	J. A. ROSS.....	Melita.....	P.C.
Springfield.....	44,918	25,514	17,442	8,253	J. S. SINNOTT.....	Beauséjour.....	Lib.
Winnipeg North.....	66,239	45,114	32,175	12,432	A. STEWART.....	Winnipeg.....	C.C.F.
Winnipeg North Centre.....	64,210	44,078	28,977	15,389	S. H. KNOWLES.....	Winnipeg.....	C.C.F.
Winnipeg South.....	54,734	45,163	34,230	16,235	L. A. MUTC <sup>3</sup> .....	Winnipeg.....	Lib.
Winnipeg South Centre.....	53,702	39,380	27,272	14,747	R. MAYBANK <sup>4</sup> .....	Fort Garry.....	Lib.
<b>Saskatchewan—</b>							
<b>(20 members)</b>							
Assiniboia.....	44,355	22,042	18,511	8,442	H. R. ARGUE.....	Kayville.....	C.C.F.
Humboldt.....	48,066	22,389	16,546	8,123	J. I. HELLAND.....	Naicam.....	Lib.
Kindersley.....	41,068	19,980	16,775	7,802	F. H. LARSON.....	Madison.....	Lib.
Lake Centre.....	42,993	21,471	18,273	8,845	J. G. DIFENBAKER.....	Prince Albert.....	P.C.
Mackenzie.....	45,797	21,572	16,525	7,564	G. M. FERRIE.....	Invermay.....	Lib.
Maple Creek.....	43,414	21,284	17,673	8,217	I. W. STUDEER.....	Lac Pelletier.....	Lib.
Meadow Lake.....	41,458	16,867	12,957	7,081	J. H. HARRISON.....	Medstead.....	Lib.
Melfort.....	46,438	23,619	16,620	7,208	P. E. WRIGHT.....	Tisdale.....	C.C.F.
Melville.....	42,687	22,221	19,092	11,120	Rt. Hon. J. G. GARDINER.....	Ottawa.....	Lib.
Moose Jaw.....	42,349	26,302	20,911	10,034	W. R. THATCHER.....	Moose Jaw.....	C.C.F.

<sup>1</sup> Successful candidate.<sup>2</sup> Died Aug. 21, 1949, and his seat remained vacant at Sept. 15, 1949.<sup>3</sup> Parliamentary Assistant to the Minister of Veterans Affairs.<sup>4</sup> Parliamentary Assistant to the Minister of Mines and Resources.



9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1949—concluded.

Province and Electoral District	Population Census, 1941	Voters on List	Total Votes Polled	Votes Polled by Member <sup>1</sup>	Name of Member	P.O. Address	Party Affiliation
	No.	No.	No.	No.			
<b>Saskatchewan—concluded</b>							
Moose Mountain.....	41,414	24,116	20,170	9,277	J. J. SMITH.....	Storthoaks.....	Lib.
Prince Albert.....	46,969	23,797	18,614	8,916	F. H. HELME.....	Prince Albert....	Lib.
Qu'Appelle.....	42,706	23,430	20,270	9,017	A. E. DEWAR.....	Indian Head.....	Lib.
Regina City.....	58,245	41,445	33,647	14,356	E. A. MCCUSKER.....	Regina.....	Lib.
Rosetown-Biggart.....	40,964	20,390	16,802	8,793	M. J. COLDWELL*.....	Ottawa.....	C.C.F.
Rosthern.....	42,809	18,623	12,003	7,398	W. A. BOUCHER.....	Hoey.....	Lib.
Saskatoon.....	47,609	36,171	27,844	11,755	R. R. KNIGHT.....	Saskatoon.....	C.C.F.
Swift Current.....	42,601	20,494	16,218	7,595	H. B. WHITESIDE.....	Sceptre.....	Lib.
The Battlefords.....	44,382	21,565	16,784	8,034	A. J. BATER.....	Baljenie.....	Lib.
Yorkton.....	49,578	25,108	19,236	8,706	A. C. STEWART.....	Yorkton.....	Lib.
<b>Alberta—</b>							
(17 members)							
Acadia.....	26,308	13,409	10,142	5,897	V. QUELCH.....	Morrin.....	S.C.
Athabaska.....	52,689	24,703	16,794	7,566	J. M. DECHENE.....	Bonnyville.....	Lib.
Battle River.....	40,455	20,547	14,124	7,705	R. FAIR.....	Vermilion.....	S.C.
Bow River.....	45,369	26,854	13,241	8,537	C. E. JOHNSTON.....	Calgary.....	S.C.
Calgary East.....	47,727	39,296	27,133	9,641	D. S. HARKNESS.....	Calgary.....	P.C.
Calgary West.....	43,744	38,321	27,054	11,457	A. L. SMITH.....	Calgary.....	P.C.
Camrose.....	43,104	22,420	15,812	7,364	H. H. W. BEYERSTEIN	Camrose.....	S.C.
Edmonton East.....	53,766	47,473	30,770	10,922	A. F. MACDONALD.....	Edmonton.....	Lib.
Edmonton West.....	48,300	46,165	31,416	14,333	G. PRUDHAM.....	Edmonton.....	Lib.
Jasper-Edson.....	58,947	30,183	20,182	7,287	J. W. WELBOURN.....	Edmonton.....	Lib.
Lethbridge.....	47,636	27,134	19,079	8,880	J. H. BLACKMORE.....	Cardston.....	S.C.
Macleod.....	43,059	23,330	16,648	7,411	E. G. HANSELL.....	Vulcan.....	S.C.
Medicine Hat.....	41,673	25,063	18,619	10,068	W. D. WYLLIE.....	Medicine Hat....	S.C.
Peace River.....	52,427	28,550	20,121	7,727	S. E. LOW*.....	Ottawa.....	S.C.
Red Deer.....	46,903	28,399	19,482	10,559	F. D. SHAW.....	Innisfail.....	S.C.
Vegreville.....	48,546	21,045	16,096	8,872	J. DECORE.....	Vegreville.....	Lib.
Wetaskiwin.....	55,516	29,426	19,509	6,784	R. THOMAS.....	Mirror.....	S.C.
<b>British Columbia—</b>							
(18 members)							
Burnaby-Richmond.....	53,587	51,125	33,248	12,848	T. H. GOODE.....	Burnaby.....	Lib.
Cariboo.....	32,875	19,054	13,298	7,330	G. M. MURRAY.....	Fort St. John....	Lib.
Coast-Capilano.....	37,614	37,434	26,432	15,318	J. SINCLAIR <sup>2</sup> .....	Hollyburn.....	Lib.
Comox-Alberni.....	37,592	29,649	19,322	11,397	J. L. GIBSON.....	Vancouver.....	Ind.
Fraser Valley.....	40,533	33,341	22,854	12,587	G. CRUICKSHANK.....	Matsqui.....	Lib.
Kamloops.....	36,936	26,035	19,295	7,690	E. D. FULTON.....	Kamloops.....	P.C.
Kootenay East.....	25,559	17,842	13,822	5,546	J. BYRNE.....	Kimberley.....	Lib.
Kootenay West.....	40,088	24,412	18,249	9,794	H. W. HERRIDGE.....	Nakusp.....	C.C.F.
Nanaimo.....	57,689	50,620	36,689	17,507	G. R. PARKES.....	Victoria.....	P.C.
New Westminster.....	48,999	46,107	33,027	13,904	T. REID <sup>3</sup> .....	New Westminster	Lib.
Skeena.....	29,612	15,167	10,107	5,847	E. T. APPLEWHITE.....	Prince Rupert....	Lib.
Vancouver-Burrard.....	56,736	48,722	30,671	10,967	J. L. MACDOUGALL.....	Vancouver.....	Lib.
Vancouver Centre.....	57,656	39,201	24,509	10,269	R. O. CAMPNEY.....	Vancouver.....	Lib.
Vancouver East.....	58,238	50,146	30,238	14,056	A. MACINNIS.....	Vancouver.....	C.C.F.
Vancouver-Quadra.....	55,944	49,439	33,530	16,658	H. C. GREEN.....	Vancouver.....	P.C.
Vancouver South.....	47,642	48,398	33,212	13,082	A. LAING.....	Vancouver.....	Lib.
Victoria.....	57,687	47,255	34,760	19,324	HON. R. W. MAYHEW	Ottawa.....	Lib.
Yale.....	51,874	41,835	31,522	13,222	O. L. JONES.....	Kelowna.....	C.C.F.
<b>Yukon and Part of Northwest Territories—</b>							
(1 member)							
Yukon-Mackenzie River.....	12,117	9,064	6,823	3,284	J. A. SIMMONS.....	Whitehorse.....	Lib.

<sup>1</sup> Successful candidate.

<sup>2</sup> Parliamentary Assistant to the Minister of Finance.

<sup>3</sup> Appointed to Senate Sept. 7, 1949, and his seat remained vacant at Sept. 15, 1949.

**The Opposition.**—The Opposition occupies an essential place in constitutions based on the British Parliamentary System. Like many other institutions such as that of the premiership, for instance, it takes its place with the many unwritten arrangements, tested by time, that have been accepted and become firmly established.

The choice of the Canadian electorate not only determines who shall govern Canada but, by deciding which party receives the second largest number of seats in the House of Commons, it settles which of the major parties becomes the Official Opposition. The function of the Leader of the Opposition is to offer intelligent and constructive criticism of the government of the day.

When criticism by the Opposition becomes sufficiently effective it can overthrow the existing government and the Leader of the Opposition might then, as a result of the ensuing election, find himself the Prime Minister.

Although the position of Leader of the Opposition is not recognized in the British North America Act, it received statutory acknowledgment in Canada in 1927. The Senate and House of Commons Act of that year provided for an annual salary to be paid to the Leader of the Opposition in addition to his indemnity as a Member of the House. (See p. 100.)

**The Franchise.**—Legislation concerning the right to vote at Dominion elections is outlined at pp. 72-73 of the 1947 Year Book.

The present franchise laws are contained in the Dominion Elections Act, 1938 (2 Geo. VI, c. 46, as amended by 6 Geo. VI, c. 26 and 12 Geo. VI, c. 46). The franchise is conferred upon all British subjects, men and women, who have attained the age of 21 years and who have been ordinarily resident in Canada for 12 months prior to polling day at a Dominion election, and ordinarily resident in the electoral district on the date of the issue of the writ ordering such election. Classes of persons denied the right to vote are:—

- (1) Judges appointed by the Governor General in Council;
- (2) The returning officer for each electoral district;
- (3) Persons undergoing punishment as inmates of any penal institution for the commission of any offence;
- (4) Indians ordinarily resident on an Indian reservation who did not serve in the First or Second World Wars;
- (5) Persons restrained of their liberty or management of their property by reason of mental disease;
- (6) Eskimos, whether born in Canada or elsewhere;
- (7) Doukhobors, residing in the Province of British Columbia, whether born in Canada or elsewhere;
- (8) Persons disqualified under any law relating to the disqualification of electors for corrupt and illegal practices.

The Act to amend the Dominion Elections Act, passed on June 15, 1948, removed the provisions previously in effect which disqualified Japanese or other persons by reason of race from voting at Dominion elections, also inmates of institutions maintained by any government or municipality for the housing of the poor.

Regulations, known as the Canadian Defence Service Voting Regulations, were drawn up and promulgated in 1948 prescribing voting procedure for personnel of the Permanent Force of the Army, Navy and Air Force. The regulations provide that these voters cast their ballots for candidates in the constituency in which they last resided prior to enlistment.

### 10.—Voters on the Lists and Votes Polled at the General Elections of 1935, 1940, 1945 and 1949

NOTE.—Corresponding statistics for the general elections of 1911, 1917, 1921 and 1925 will be found at p. 82 of the 1926 Year Book; those for 1926 at p. 66 of the 1945 edition and those for 1930 at p. 94 of the 1948-49 edition.

Province or Territory	Voters on the Lists				Votes Polled			
	1935	1940	1945	1949	1935	1940	1945	1949
	No.	No.	No.	No.	No.	No.	No.	No.
Newfoundland.....	...	...	...	182,439	...	...	...	105,189
P. E. Island.....	53,284	55,339	54,794	55,772	61,641 <sup>1</sup>	62,943 <sup>1</sup>	63,807 <sup>1</sup>	68,393 <sup>1</sup>
Nova Scotia.....	304,313	335,990	362,754	373,585	275,523 <sup>2</sup>	283,428 <sup>2</sup>	312,954 <sup>2</sup>	338,927 <sup>2</sup>
New Brunswick....	229,266	251,986	262,261	286,723	177,485	174,734	204,273	225,877
Quebec.....	1,575,159	1,799,942	1,956,225	2,176,913	1,162,862	1,189,489	1,433,591	1,610,513
Ontario.....	2,174,188	2,340,344	2,457,937	2,718,118	1,608,244	1,625,439	1,831,806	2,042,294
Manitoba.....	377,733	425,066	433,921	451,882	284,589	320,860	327,794	324,079
Saskatchewan.....	451,386	481,931	445,601	472,886	347,536	373,376	379,539	375,471
Alberta.....	368,956	423,609	430,430	492,228	241,107	272,418	315,863	341,222
British Columbia..	382,117	472,584	545,077	673,782	292,423	368,103	433,402	464,785
Yukon.....	1,805	2,097	3,445	9,064	1,265	1,741	2,164	6,823
<b>Totals.....</b>	<b>5,918,207</b>	<b>6,588,888</b>	<b>6,952,445</b>	<b>7,893,392</b>	<b>4,452,675</b>	<b>4,672,531</b>	<b>5,305,193</b>	<b>5,903,573</b>

<sup>1</sup> Each voter in the double-member constituency of Queens County, P.E.I., had two votes; in 1945, 24,540 voters on the list cast 38,812 votes. <sup>2</sup> Each voter in the double-member constituency of Halifax, N.S., had two votes; in 1945, 85,262 voters on the list cast 105,618 votes.

### Subsection 3.—The Judiciary

#### The Federal Judiciary

The Parliament of Canada is empowered by Sect. 101 of the British North America Act to provide from time to time for the constitution, maintenance and organization of a general Court of Appeal for Canada and for the establishment of any additional courts for the better administration of the laws of Canada. Under this provision the Parliament of Canada has established the Supreme Court of Canada, the Exchequer Court of Canada and certain miscellaneous courts.

**Supreme Court of Canada.**—This Court (first established in 1875 by 38 Vict., c. 11, and now governed by the Supreme Court Act, R.S.C. 1927, c. 35) consists of a chief justice, who is called the Chief Justice of Canada, and six puisne judges. The chief justice and the puisne judges are appointed by the Governor in Council and they hold office during good behaviour but are removable by the Governor General on address of the Senate and House of Commons. They cease to hold office upon attaining the age of 75 years. The Court sits at Ottawa and exercises general appellate jurisdiction throughout Canada in civil and criminal cases. The Court is also required to consider and advise upon questions referred to it by the Governor in Council and it may also advise the Senate or House of Commons on private bills referred to the Court under any rules or orders of the Senate or House of Commons.

Appeals may be brought from any final judgment of the highest court of final resort in a province in any case where the amount or value of the matter in controversy exceeds the sum of \$2,000. Where the amount in controversy does not exceed \$2,000 an appeal may be brought with leave of the highest court of final resort in the province; if such court refuses to grant leave the Supreme Court of Canada may, in special cases, grant leave to appeal. Appeals in criminal cases are regulated by Sects. 1023 and 1025 of the Criminal Code. Appeals from Dominion courts are regulated by the statutes establishing such courts.



The judgment of the Supreme Court of Canada in criminal cases is final and conclusive but in civil cases a further appeal may be taken to the Judicial Committee of the Privy Council with leave of the Privy Council.

**Exchequer Court.**—The Exchequer Court of Canada was first established in 1875 as part of the Supreme Court of Canada but it is now a separate court and is governed by the Exchequer Court Act (R.S.C. 1927, c. 34). The Court consists of a president and four puisne judges who are appointed by the Governor in Council. The president and the puisne judges hold office during good behaviour but may be removed by the Governor General on address of the Senate and House of Commons. They cease to hold office upon attaining the age of 75 years. One of the puisne judges is the Chief Commissioner of the Board of Transport Commissioners. The Court sits at Ottawa and also at any other place in Canada for which sittings may be fixed by the Court. The jurisdiction of the Court extends to cases where claims are made by or against the Crown in right of Canada. Proceedings against the Crown are taken by petition of right pursuant to the Petition of Right Act (R.S.C. 1927, c. 158). Before proceedings can be taken against the Crown a fiat from the Governor General must be obtained.

An appeal lies to the Supreme Court of Canada from any final judgment of the Exchequer Court in which the amount in controversy exceeds \$500; an appeal also lies with leave of the Supreme Court in certain cases where the amount in controversy does not exceed \$500.

The Exchequer Court also exercises admiralty jurisdiction in Canada. Admiralty jurisdiction was first conferred in 1891 by the Admiralty Act (54-55 Vict., c. 29) and the admiralty jurisdiction is now governed by the Admiralty Act (24-25 Geo. V, c. 31). Under this statute the Exchequer Court is continued as a Court of Admiralty. The president and puisne judges of the Exchequer Court exercise admiralty jurisdiction throughout the whole of Canada. In addition, Canada is divided into various admiralty districts; a district judge in admiralty is appointed for each district and he exercises admiralty jurisdiction within his district. Appeals to the Supreme Court of Canada from judgments of the president or the puisne judges are governed by the general appeal provisions in the Exchequer Court Act. Appeals may be taken from a final judgment of a district judge in admiralty either to the Exchequer Court or directly to the Supreme Court of Canada.

**Miscellaneous Courts.**—*Railway Act.*—The Railway Act (R.S.C. 1927, c. 170) established the Board of Railway Commissioners for Canada as a court of record; by the Transport Act, 1938 (2 Geo. VI, c. 53), the name was changed to the Board of Transport Commissioners for Canada. This Court exercises jurisdiction with respect to railway matters. The Governor in Council is given jurisdiction to vary any order of the Board and an appeal lies from the Board to the Supreme Court of Canada upon a question of jurisdiction or a question of law.

*Bankruptcy Act.*—By virtue of para. 21 of Sect. 91 of the British North America Act, Parliament has exclusive legislative jurisdiction in relation to bankruptcy and insolvency. By the Bankruptcy Act (R.S.C. 1927, c. 11) the superior courts of the provinces are constituted bankruptcy courts; original jurisdiction is conferred upon the trial courts and appellate jurisdiction is conferred upon the appeal courts of the provinces.



*Farmers' Creditors Arrangement Act.*—Under the Farmers' Creditors Arrangement Act, 1943 (7 and 8 Geo. VI, c. 26), the county or district courts of the provinces are established as courts for the purposes of this Act and the appeal courts of the provinces are given appellate jurisdiction.

### Provincial Judiciaries

Express provisions of the British North America Act govern, to some extent, the provincial judiciaries. Under Sect. 92 (14) the legislature of each province may exclusively make laws in relation to the administration of justice in the province including the constitution, maintenance and organization of provincial courts, both of civil and criminal jurisdiction. Sect. 96 provides that the Governor General shall appoint the judges of the Superior, District and County Courts in each province, except those of the Courts of Probate in Nova Scotia and New Brunswick. Sect. 100 provides that the salaries, allowances and pensions of judges of the Superior, District and County Courts (except the Courts of Probate in Nova Scotia and New Brunswick) are to be fixed and provided by the Parliament of Canada, and these are set out in the Judges Act, 1946 (10 Geo. VI, c. 56). Under Sect. 99 the judges of the Superior Courts hold office during good behaviour, but are removable by the Governor General on address of the Senate and House of Commons. The tenure of office of District and County Court judges is fixed by Sect. 33 of the Judges Act, 1946, as being during good behaviour and their residence within the county or union of counties for which the Court is established.

**Newfoundland.**—*Supreme Court [Consolidated Statutes (Third Series) c. 83].*—The Supreme Court of Newfoundland consists of a chief justice and two other judges, appointed by the Governor General in Council. The Court has original and appellate jurisdiction.

*Central District Court [Consolidated Statutes (Third Series) c. 85].*—The Central District Court for the Central District is situated at St. John's. It is presided over by a judge and has jurisdiction in civil cases up to \$200, but has no jurisdiction in cases involving title to lands. Jurisdiction is also excluded in certain personal actions such as libel and slander.

*Stipendiary Magistrates and Justices of the Peace [Consolidated Statutes (Third Series) c. 86].*—Stipendiary magistrates and justices of the peace are appointed for the Province and have limited criminal and civil jurisdiction.

**Prince Edward Island.**—*Supreme Court (S.P.E.I. 1940, c. 35).*—The Supreme Court of Prince Edward Island consists of a chief justice, who is known as the Chief Justice of Prince Edward Island, and two other judges, all appointed by the Governor General in Council. The Court has original and appellate jurisdiction.

*Court of Chancery (S.P.E.I. 1940, c. 11).*—The Court of Chancery consists of a Chancellor, a Vice-Chancellor and the Master of the Rolls. The Chancellor is the Lieutenant-Governor, the Vice-Chancellor is one of the judges of the Supreme Court and the Master of the Rolls is one of the other judges of the Supreme Court. The Court has original jurisdiction in chancery matters.

*County Courts (S.P.E.I. 1937, c. 6).*—There are three counties in the Province with a County Court and judge for each county. Each Court has criminal jurisdiction and also civil jurisdiction generally in actions up to \$500, but has no jurisdiction in cases involving title to or possession of land.

*Probate Court (S.P.E.I. 1938, c. 41).*—There is one judge, appointed by the Lieutenant-Governor in Council. The Court has jurisdiction in probate and guardianship matters.

*Magistrates and Justices of the Peace (S.P.E.I. 1939, c. 32).*—Magistrates and justices of the peace are appointed by the Lieutenant-Governor in Council. They have limited criminal and civil jurisdiction.

**Nova Scotia.**—*Supreme Court (S.N.S. 1919, c. 32).*—The Supreme Court of Nova Scotia consists of a chief justice and six other judges appointed by the Governor General in Council. The Court has original and appellate jurisdiction in civil and in criminal cases. Sitting individually the judges act as Trial Division and sitting *en banc* the judges act as Appeal Judges.

*Court of Divorce and Matrimonial Causes (R.S.N.S., Third Series, c. 126).*—This Court was established by a pre-Confederation statute and has divorce jurisdiction only. The judge is one of the judges of the Supreme Court.

*County Courts (S.N.S. 1945, c. 5).*—There are seven County Court districts in Nova Scotia and a County Court and judge for each district. The judges are appointed by the Governor General in Council. Each Court has criminal jurisdiction and jurisdiction in civil cases up to \$1,000, but no jurisdiction where any devise or bequest is disputed.

*Probate Court (R.S.N.S. 1923, c. 217).*—By the Probate Act the County Court judges are ex officio judges in probate. Probate matters are decided in the first instance by a registrar of probate and appeals may be taken to the probate judges. A registrar of probate is appointed for each county.

*Magistrates.*—There are 64 stipendiary magistrates and six provincial magistrates, all appointed by the Lieutenant-Governor in Council. They have limited criminal jurisdiction and civil jurisdiction up to \$100.

*Minor Courts of Civil Jurisdiction.*—These consist of Courts established pursuant to city charters, Municipal Courts and Justices Courts. The City and Municipal Courts have jurisdiction up to \$100 and Justices Courts have jurisdiction up to \$20 singly or up to \$80 when two justices are sitting.

*Juvenile Courts (R.S.N.S. 1923, c. 166).*—The Children's Protection Act provides for the establishment of Juvenile Courts and the appointment of Juvenile Court judges. The Courts exercise jurisdiction in juvenile matters under provincial statutes and are also Juvenile Courts under the Dominion Juvenile Delinquents Act. There are six Juvenile Court judges.

**New Brunswick.**—*Supreme Court (R.S.N.B. 1927, c. 113).*—The Supreme Court of New Brunswick consists of three divisions, namely, an Appeal Division, a Chancery Division and a King's Bench Division. The Appeal Division consists of a chief justice, who is known as the Chief Justice of New Brunswick, and two other judges. The Chancery Division consists of three judges who are the judges of the Appeal Division. The King's Bench Division consists of a chief justice and three other judges. The Appeal Division has general appellate jurisdiction throughout the Province and the King's Bench Division has unlimited original jurisdiction throughout the Province in civil and criminal matters except in chancery. All judges are appointed by the Governor General in Council.

*Court of Divorce and Matrimonial Causes (R.S.N.B. 1927, c. 115).*—This Court was established by a pre-Confederation statute which has continued in force to date. It has divorce jurisdiction only. There is one judge who is appointed by the Governor General in Council.

*County Courts (R.S.N.B. 1927, c. 116).*—The Province is divided into counties with a County Court for a county or group of counties. There are six County Court judges, appointed by the Governor General in Council. The Court has criminal jurisdiction, jurisdiction in contracts up to \$400 and jurisdiction in damage actions up to \$200. The Court has no jurisdiction where title to land is brought in question or the validity of any devise or bequest is disputed.

*Probate Court (R.S.N.B. 1927, c. 120).*—A Probate Court is established by provincial Act for each county and each Court is presided over by a judge appointed by the Lieutenant-Governor in Council. The Court has jurisdiction over estates.

*Juvenile Court (S.N.B. 1944, c. 44).*—The Juvenile Courts Act provides for the establishment of a Juvenile Court for each place where the Dominion Juvenile Delinquents Act is in force. Two judges have been appointed, one for Saint John and one for Moncton. The Court has jurisdiction in juvenile matters under provincial statutes and is also a Juvenile Court under the Dominion Juvenile Delinquents Act.

*Magistrates.*—There are four classes of magistrates, namely, those appointed under the Local Courts Act (R.S.N.B. 1927, c. 121), the Towns Incorporation Act (R.S.N.B. 1927, c. 179), under city charters and under the Magistrates Act (S.N.B. 1942, c. 58). Magistrates have limited civil and criminal jurisdiction.

*Justices and Commissioners Courts.*—These Courts of limited jurisdiction are gradually being replaced by Magistrates Courts.

*Quebec (R.S.Q. 1941, c. 15).*—*Court of King's Bench.*—The Court consists of a chief justice, who is called the Chief Justice of the Province of Quebec, and 11 other judges, all of whom are appointed by the Governor General in Council. The Court has appellate jurisdiction in civil and criminal matters and has original jurisdiction in criminal cases.

*Superior Court.*—The Superior Court consists of a chief justice, an associate chief justice and 35 other judges, all of whom are appointed by the Governor General in Council. The Court has general original jurisdiction in civil cases throughout the Province.

*Magistrates.*—Magistrates are appointed by the Lieutenant-Governor in Council. They exercise criminal jurisdiction and also civil jurisdiction in cases up to \$200.

*Family Courts.*—The Lieutenant-Governor in Council is authorized to establish Family Courts but a Court may be established only for a territory that includes a city with a population of over 25,000. The judges are appointed by the Lieutenant-Governor in Council. Every Family Court is a Juvenile Court under the Dominion Juvenile Delinquents Act.

*Sessions of the Peace.*—The Courts are established and the judges appointed by provincial authority. Two judges are to reside at Montreal and at least one judge at the city of Quebec. The Courts have criminal jurisdiction only.



*Justices of the Peace, Recorder's Courts and Commissioners' Courts.*—These Courts are established by provincial authority. They have limited civil and criminal jurisdiction. The Recorder's Courts and Commissioners' Courts deal largely with municipal matters.

**Ontario.**—*Supreme Court (R.S.O. 1937, c. 100).*—The Supreme Court of Ontario consists of two divisions, one of which is known as the Court of Appeal for Ontario and the other as the High Court of Justice for Ontario. The Court of Appeal consists of a chief justice, who is called the Chief Justice of Ontario, and seven other judges. The High Court of Justice consists of a chief justice, who is known as the Chief Justice of the High Court, and 14 other judges. All judges are appointed by the Governor General in Council. The Court of Appeal has general appellate jurisdiction throughout the Province and the High Court of Justice has unlimited original jurisdiction in civil and criminal matters.

*County and District Courts (R.S.O. 1937, c. 103).*—The Province is divided into 48 counties and districts with a County or District Court for each county or district and one or more judges for each Court. There are 62 judges in all, and they are appointed by the Governor General in Council. The Court has criminal jurisdiction, jurisdiction in contracts where the amount claimed does not exceed \$800 and jurisdiction in personal and property actions where the amount claimed does not exceed \$500.

*Surrogate Courts (R.S.O. 1937, c. 106).*—There is a Surrogate Court for each county or district. The Court has jurisdiction to deal with probate and administration matters and is presided over by the County or District Court judge for the district.

*Division Courts (R.S.O. 1937, c. 107).*—There are 285 Division Courts throughout the Province. These are presided over by the County or District Court judge who sits in the jurisdiction where the particular Division Court is located. Jurisdiction is limited to cases up to \$200 except where there is a written contract or a promise in which case jurisdiction extends to \$400.

*Juvenile Courts (R.S.O. 1937, c. 316).*—The Juvenile Court for Ontario has jurisdiction in juvenile cases under provincial legislation; in addition it is a Juvenile Court for the purposes of the Dominion Juvenile Delinquents Act. The judges are appointed by the Lieutenant-Governor in Council; sometimes the county or district judge is appointed, sometimes the local magistrate and sometimes a person is appointed specially for the purpose of acting as a Juvenile Court judge.

*Magistrates (R.S.O. 1937, c. 133).*—Magistrates are appointed by the Lieutenant-Governor in Council. They have limited civil and criminal jurisdiction and are ex officio justices of the peace.

*Justices of the Peace (R.S.O. 1937, c. 132).*—Justices of the peace are appointed by the Lieutenant-Governor in Council. They have limited civil and criminal jurisdiction.

**Manitoba.**—*Court of Appeal (R.S.M. 1940, c. 40).*—The Court of Appeal consists of a chief justice, who is called the Chief Justice of Manitoba, and four other judges. All judges are appointed by the Governor General in Council. The Court has general appellate jurisdiction throughout the Province.



*Court of King's Bench (R.S.M. 1940, c. 44).*—The Court consists of a chief justice, who is known as the Chief Justice of the King's Bench, and four other judges. All judges are appointed by the Governor General in Council. The Court has unlimited original jurisdiction throughout the Province in civil and criminal cases.

*County Courts (R.S.M. 1940, c. 42).*—The Province is divided into six judicial districts and a number of County Courts are established for each district. A judge is appointed by the Governor General in Council for each district and he is the judge of all the County Courts within the district. There are five judges for the Eastern Judicial District and the other districts each have one judge. The Court has criminal jurisdiction and also jurisdiction generally in claims not exceeding \$800 but has no jurisdiction in certain types of actions such as recovery of land.

*Surrogate Court (R.S.M. 1940, c. 45).*—There is a Surrogate Court for each judicial district and the Surrogate Courts Act provides that the County Court judge in each judicial district is to be the judge of the Surrogate Court of that district. The Court has jurisdiction and authority in relation to testamentary matters.

*Juvenile Courts (R.S.M. 1940, c. 32).*—The Juvenile Courts are established under the Child Welfare Act and the territorial jurisdiction of each Court is set out in the Order in Council establishing the Court and appointing the judges. There are two judges for Winnipeg, one for Brandon, and one for Dauphin. In addition, there are 22 deputy judges. The Courts have power to deal with cases involving children under the Child Welfare Act and other provincial statutes and are also Juvenile Courts for the purposes of the Dominion Juvenile Delinquents Act.

*Police Magistrates (R.S.M. 1940, c. 125).*—Police magistrates are appointed by the Lieutenant-Governor in Council and in addition to criminal jurisdiction they have jurisdiction to try actions for debt where the amount does not exceed \$100. An appeal lies to the judge of a County Court. There are 40 police magistrates in the Province.

*Justices of the Peace (R.S.M. 1940, c. 125).*—Justices of the peace are appointed by the Lieutenant-Governor in Council. They have limited criminal jurisdiction and also small debt jurisdiction up to \$100.

**Saskatchewan.**—*Court of Appeal (R.S.S. 1940, c. 60).*—The Court of Appeal consists of a chief justice, who is called the Chief Justice of Saskatchewan, and four other judges. All judges are appointed by the Governor General in Council. The Court has general appellate jurisdiction throughout the Province.

*Court of King's Bench (R.S.S. 1940, c. 61).*—The Court of King's Bench consists of a chief justice, who is called the Chief Justice of the King's Bench, and six other judges. All judges are appointed by the Governor General in Council. The Court has unlimited original jurisdiction throughout the Province in civil and criminal matters.

*District Courts (R.S.S. 1940, c. 62).*—The Province is divided into 21 judicial districts and there is a District Court for each judicial district. The judges are appointed by the Governor General in Council. Each Court has jurisdiction generally in all cases where the claim does not exceed \$1,200, but jurisdiction does not include cases where title to land is brought in question or where the validity of any devise or bequest is disputed. Jurisdiction is also excluded in certain personal actions such as malicious prosecution, malicious arrest, false imprisonment, libel, slander and breach of promise of marriage. The Court also has criminal jurisdiction.

*Surrogate Courts (R.S.S. 1940, c. 63).*—There is a Surrogate Court for each judicial district and the Surrogate Courts Act provides that the judge of the District Court shall be the judge of the Surrogate Court. The Court has jurisdiction in probate matters.

*Juvenile Court (S.S. 1946, c. 91).*—Under the Child Welfare Act a Juvenile Court is established. Each judge of a District Court and each police magistrate in the Province is ex officio a judge of the Juvenile Court and, in addition, the Lieutenant-Governor in Council may appoint other judges of the Juvenile Court. The Court has jurisdiction over juvenile offences under provincial statutes and also has jurisdiction, under the Dominion Juvenile Delinquents Act.

*Magistrates' Courts (R.S.S. 1940, c. 94).*—Magistrates are appointed by the Lieutenant-Governor in Council. There are eight full-time and eight part-time magistrates. All the magistrates exercise criminal jurisdiction. They are ex officio justices of the peace and accordingly have the jurisdiction of a justice of the peace in civil cases.

*Justices of the Peace (R.S.S. 1940, c. 95).*—Justices of the peace are appointed by the Lieutenant-Governor in Council and, in addition to limited criminal jurisdiction, have jurisdiction in civil cases up to \$100.

**Alberta.**—*Supreme Court (R.S.A. 1942, c. 129).*—The Supreme Court of Alberta consists of two branches or divisions; one is designated the Appellate Division of the Supreme Court of Alberta and the other is designated the Trial Division of the Supreme Court of Alberta. The Appellate Division consists of a chief justice, who is called the Chief Justice of Alberta, and four other judges. The Trial Division consists of a chief justice, who is called the Chief Justice of the Trial Division, and five other judges. All judges of the Supreme Court are appointed by the Governor General in Council. The Appellate Division exercises general appellate jurisdiction throughout the Province and the Trial Division has unlimited original jurisdiction in civil and criminal matters.

*District Courts (R.S.A. 1942, c. 121).*—There are two District Court districts in Alberta, namely, the District of Northern Alberta and the District of Southern Alberta, with a District Court for each. The Court of the District of Northern Alberta consists of a chief judge and five other judges and the Court of the District of Southern Alberta consists of a chief judge and four other judges. All judges are appointed by the Governor General in Council. The District Courts generally have jurisdiction in all cases where the claim does not exceed \$600 and, in addition, have jurisdiction in criminal, probate and guardianship matters.

*Juvenile Courts (S.A. 1944, c. 8).*—The Child Welfare Act establishes a Juvenile Court for the Province and every judge of the Supreme Court, every judge of a District Court and every police magistrate is ex officio a judge of the Juvenile Court. In addition the Lieutenant-Governor in Council may appoint other persons to be judges of the Juvenile Court; 11 such judges have been appointed. The Court has jurisdiction to hear and determine offences charged against children under any statute of the Province and, in addition, the Court is a Juvenile Court for the purposes of the Dominion Juvenile Delinquents Act.

# COATS-OF-ARMS AND EMBLEMS OF CANADA AND THE PROVINCES



ONTARIO



2

QUEBEC



3

NOVA SCOTIA

NEW BRUNSWICK



4



MANITOBA



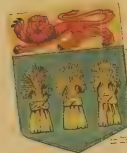
5



6

BRITISH COLUMBIA

PRINCE EDWARD  
ISLAND



8

ALBERTA



9

NEWFOUNDLAND



7

SASKATCHEWAN

Note - The Provinces are listed in order of their entrance into Confederation

## DESCRIPTION OF ARMS AND MOTTOES AND EMBLEMS

o

### Glossary of Terms

<i>Argent</i> —silver	<i>Crosse patée</i> —a special form of cross	<i>Or</i> —gold
<i>Armed</i> —with beak, talons, etc.	<i>Fesse</i> —horizontal band across shield	<i>Pascent</i> —walking
<i>Azure</i> —blue	<i>Gerb</i> —sheaf of wheat	<i>Proper</i> —in natural colour
<i>Charge</i> —device on shield	<i>Gorged</i> —bearing on the throat	<i>Rampant</i> —leaping
<i>Chief</i> —band in top of shield	<i>Guardant</i> —looking full face at the spectator	<i>Sable</i> —black
<i>Crined</i> —maned	<i>Gules</i> —red	<i>Stalant</i> —standing
	<i>Langued</i> —tongued	<i>Tierced</i> —divided into three parts
		<i>Vert</i> —green

## Canada

The Armorial Bearings of the Dominion were authorized Nov. 21, 1921.

DESCRIPTION OF ARMS.—Three considerations were kept in view in determining the combination of arms, crest, supporters, and motto: firstly, that Canadians stand to the King in the relation of British subjects; secondly, that Canada, though an integral part of the British Empire, is a member of the League of Nations; and lastly, that Canada was founded by the men of four different races—French, English, Scottish and Irish—and inherits the culture of all four. The arms are those of England, Scotland, Ireland and France, with a "difference" to mark them as Canadian, namely, on the lower third of the shield, a sprig of maple on a silver shield. The CREST is a lion holding in its paw a red maple leaf, a symbol of sacrifice. The SUPPORTERS are, with some slight distinctions, the lion and unicorn of the Royal Arms, the lion upholds the Union Jack, and the unicorn the ancient banner of France.

MOTTO.—A MARI USQUE AD MARE—"From sea to sea"—is an extract from the Latin version of verse 8 of the 72nd Psalm: "He shall have dominion also from sea to sea, and from the river unto the ends of the earth."

FLORAL EMBLEM.—Maple Leaf.

## Ontario

Granted by Royal Warrant dated May 26, 1868. Crest and Supporters granted by Royal Warrant dated Feb. 27, 1909.

DESCRIPTION OF ARMS.—"Vert a Sprig of three leaves of Maple slipped Or, on a Chief Argent the Cross of St. George." CREST—"Upon a Wreath of the Colours a Bear passant Sable, and the SUPPORTERS on the dexter side A Moose, and on the sinister side A Canadian Deer, Both Proper."

MOTTO.—"Ut Incepit Fidelis Sic Permanet" (Loyal in the beginning, so it remained).

FLORAL EMBLEM.—White Trillium (c. 26, 1937).

## Quebec

Adopted by Provincial Order in Council of Dec. 9, 1939.

DESCRIPTION OF ARMS.—Tierced in fesse: Azure three Fleur-de-lis Or; Gules a Lion passant guardant Or armed and langued Azure; Or a Sugar Maple Sprig with three Leaves veined vert. Surmounted with the Royal Crown. Below the Shield a Scroll Argent surrounded by a Bordure Azure inscribed with the Motto Azure.

MOTTO.—"Je me souviens" (I remember).

FLORAL EMBLEM.—Maple Leaf (unofficial).

## Nova Scotia

Granted by Royal Warrant dated Jan. 19, 1929, to supersede Armorial Ensigns granted May 26, 1868.

DESCRIPTION OF ARMS.—"Argent a Cross of St. Andrew Azure charged with an escutcheon of the Royal Arms of Scotland", with the CREST, on a Wreath of the Colours, "A branch of laurel and a thistle issuing from two hands conjoined the one being armed and the other naked all proper", and for SUPPORTERS, on the dexter "An Unicorn Argent armed crined and unguled Or, and crowned with the Imperial Crown proper, and gorged with a Coronet composed of crosse patée and fleur-de-lis, a chain affixed thereto passing through the forelegs and reflexed over the back, Gold"—and on the sinister, "A Savage holding in the exterior hand an arrow".

MOTTO.—"Munit hæc et altera vincit" (One defends and the other conquers).

FLORAL EMBLEM.—Trailing Arbutus (or Mayflower) (c. 10, 1901).

## New Brunswick

Granted by Royal Warrant dated May 26, 1868.

DESCRIPTION OF ARMS.—"Or on Waves of Lymphad, or Ancient Galley, with Oars in Action proper on a Chief Gules a Lion passant guardant Or."

FLORAL EMBLEM.—Purple Violet (Provincial Order in Council of Dec. 1, 1936).

## Manitoba

Granted by Royal Warrant dated May 10, 1905.

DESCRIPTION OF ARMS.—"Vert on a Rock a Buffalo statant proper, on a Chief Argent the Cross of St. George."

FLORAL EMBLEM.—Crocus (*anemone patens*) (c. 29, 1906).

## British Columbia

Granted by Royal Warrant dated Mar. 31, 1906.

DESCRIPTION OF ARMS.—"Argent three Bars wavy Azure issuant from the base of a demi-Sun in splendour proper, on a Chief of the Union Device charged in the centre Point with an Antique Crown Or." The CREST and SUPPORTERS (dexter an Elk and sinister a Mountain Sheep, both proper) have become part of the Provincial Achievement through usage.

MOTTO.—"Splendor sine occasu" (Splendour without diminishment).

## Prince Edward Island

Granted by Royal Warrant dated May 30, 1905.

DESCRIPTION OF ARMS.—"Argent on an Island Vert, to the Sinister an Oak Tree fructed, to the Dexter thereof three oak Saplings Sprouting all Proper, on a Chief Gules a Lion passant guardant Or."

MOTTO.—"Parva sub ingenti" (The small under [the protection of] the great).

## Saskatchewan

Granted by Royal Warrant dated Aug. 25, 1906.

DESCRIPTION OF ARMS.—"Vert three Garbs in fesse Or, on a Chief of the lost a Lion passant guardant Gules."

FLORAL EMBLEM.—Prairie Lily (c. 8, 1941).

## Alberta

Granted by Royal Warrant dated May 30, 1907.

DESCRIPTION OF ARMS.—"Azure in front of a Range of Snow Mountains proper, a Range of Hills Vert, in base a Wheat-field surmounted by a Prairie both also proper, on a Chief Argent a St. George's Cross."

FLORAL EMBLEM.—Wild Rose (c. 38, 1930).

## Newfoundland

Granted by Royal Letters Patent dated Jan. 1, 1637.

DESCRIPTION OF ARMS.—"Gules a cross Argent, in the first and fourth quarters a Lion passant Guardant crowned Or; in the second and third quarters an Unicorn passant Argent, armed, maned and unguled of the third, and gorged with a crown, thereto a chain affixed passing between the forelegs and reflected over his back also Or Mantled Gules doubled Argent." CREST—"On a Wreath Or and Gules an Elk passant proper." SUPPORTERS—"Two Savages of the clime armed and apparelled according to their guise when they go to war."

MOTTO.—"Quærite prime regnum Dei" (Seek ye first the Kingdom of God).

FLORAL EMBLEM.—Pitcher Plant (selected by Queen Victoria and commonly accepted throughout the Island).





*Police Magistrates (R.S.A. 1942, c. 134).*—Police magistrates have criminal jurisdiction and also jurisdiction in actions for debt not exceeding \$100 and wage claims not exceeding six months' wages. Ninety-six police magistrates have been appointed.

*Justices of the Peace (R.S.A. 1942, c. 134).*—Justices of the peace are appointed by the Lieutenant-Governor in Council. They have limited civil and criminal jurisdiction.

**British Columbia.**—*Court of Appeal (R.S.B.C. 1936, c. 57).*—The Court of Appeal consists of a chief justice, who is called the Chief Justice of British Columbia, and four other judges who are called Justices of Appeal. All are appointed by the Governor General in Council. The Court exercises general appellate jurisdiction.

*Supreme Court (R.S.B.C. 1936, c. 56).*—This Court consists of a chief justice, who is called the Chief Justice of the Supreme Court, and five other judges who are called Judges of the Supreme Court. All are appointed by the Governor General in Council. The Court has unlimited original jurisdiction throughout the Province in civil and criminal matters.

*County Courts (R.S.B.C. 1936, c. 58).*—There are eight counties in the Province with a County Court for each county and one or more judges for each County Court. All judges are appointed by the Governor General in Council. Each County Court has jurisdiction up to \$1,000 generally and in some cases up to \$2,500 and has jurisdiction in criminal and probate matters. The Courts have no jurisdiction in certain types of personal actions such as libel, slander or breach of promise of marriage.

*Small Debts Court (R.S.B.C. 1936, c. 62).*—The Small Debts Court Act provides that the Lieutenant-Governor in Council may appoint any stipendiary magistrate, police magistrate or any two justices of the peace to exercise small debt jurisdiction within the territorial limits for which he or they have been appointed. There are 97 Small Debts Court magistrates. Jurisdiction is limited to \$100 and an appeal lies to the nearest County Court judge or Supreme Court judge.

*Magistrates and Justices of the Peace (R.S.B.C. 1936, c. 163).*—Magistrates and justices of the peace are appointed by the Lieutenant-Governor in Council. They have limited civil and criminal jurisdiction.

## Section 2.—Provincial Governments

In each of the provinces, the King is represented by a Lieutenant-Governor appointed by the Governor General in Council and acts on the advice and with the assistance of his Ministry or Executive Council, which is responsible to the Legislature and resigns office when it ceases to enjoy the confidence of that body. The Legislature of each province, with the exception of Quebec, is now unicameral, consisting of a Legislative Assembly elected by the people. In Quebec there is a Legislative Council as well as a Legislative Assembly.

# 11.—Provinces and Territories of Canada, with Present Areas, Dates of Admission to Confederation, and Legislative Process by which Admission was Effected

Province, Territory or District	Date of Admission or Creation	Legislative Process	Present Area (square miles)		
			Land	Fresh Water	Total
Ontario.....	July 1, 1867	Act of Imperial Parliament — The British North America Act, 1867 (30-31 Vict., c. 3), and Imperial Order in Council of May 22, 1867, Manitoba Act, 1870 (33 Vict., c. 3) and Imperial Order in Council, June 23, 1870.	363,282	49,300	412,582 <sup>1</sup>
Quebec.....	July 1, 1867		523,860	71,000	594,860 <sup>2</sup>
Nova Scotia....	July 1, 1867		20,743	325	21,068
New Brunswick..	July 1, 1867		27,473	512	27,985
Manitoba.....	July 15, 1870		219,723	26,789	246,512 <sup>3</sup>
British Columbia	July 20, 1871	Imperial Order in Council, May 16, 1871	359,279	6,976	366,255
P. E. Island.....	July 1, 1873	Imperial Order in Council, June 26, 1873	2,184	--	2,184
Yukon.....	June 13, 1898	Yukon Territory Act, 1898 (61 Vict., c. 6).....	205,346	1,730	207,076
Saskatchewan...	Sept. 1, 1905	Saskatchewan Act, 1905 (4-5 Edw. VII, c. 42).....	237,975	13,725	251,700 <sup>4</sup>
Alberta.....	Sept. 1, 1905	Alberta Act, 1905 (4-5 Edw. VII, c. 3).....	248,800	6,485	255,285 <sup>4</sup>
Mackenzie.....	Jan. 1, 1920		493,225	34,265	527,490 <sup>5</sup>
Keewatin.....	Jan. 1, 1920		218,460	9,700	228,160 <sup>5</sup>
Franklin.....	Jan. 1, 1920		541,753	7,500	549,253 <sup>5</sup>
Newfoundland...	Mar. 31, 1949	Act to approve the Terms of Union of Newfoundland with Canada, 1949 (13 Geo. VI, c. 1).....	37,013 <sup>6</sup>	5,721 <sup>6</sup>	154,734 <sup>7</sup>
<b>Canada .....</b>			<b>3,499,116</b>	<b>234,028</b>	<b>3,845,144</b>

<sup>1</sup> The area of Ontario was extended by the Ontario Boundaries Extension Act, 1912 (2 Geo. V, c. 40).

<sup>2</sup> Extended by Quebec Boundaries Extension Act, 1912 (2 Geo. V, c. 45), and diminished in consequence of the Award of the Judicial Committee of the British Privy Council (Mar. 1, 1927), whereby some 112,000 square miles of territory, formerly considered as part of Quebec, were assigned to Newfoundland.

<sup>3</sup> Extended by Extension of Boundaries of Manitoba Act, 1881, and Manitoba Boundaries Extension Act, 1912 (2 Geo. V, c. 32).

<sup>4</sup> Alberta and Saskatchewan now cover approximately the area formerly comprised in the districts of Assiniboia, Athabaska, Alberta and Saskatchewan, established May 17, 1882, by minute of Canadian P.C., concurred in by Dominion Parliament and Order in Council of Oct. 2, 1895.

<sup>5</sup> By Order in Council, June 23, 1870, Rupert's Land, acquired under the Rupert's Land Acts of 1867 and 1868, and the undefined Northern Territories were admitted into the Confederation.

The original Northwest Territories, mentioned in the Manitoba Act, 1870, were established by the Northwest Territories Act, 1880 (43 Vict., c. 25), the District of Keewatin having been previously defined by an Act of the Dominion Parliament (39 Vict., c. 21).

The provisional Districts of Yukon, Mackenzie, Franklin and Ungava were defined in an Order in Council of Oct. 2, 1895, their boundaries being changed by Order in Council of Dec. 18, 1897.

By Order in Council of July 24, 1905, the area of Keewatin, not included in the Northwest Territories, was annexed to the latter from Sept. 1, 1905.

By the Extension of Boundaries Act, 1912, Ungava was made a part of the Province of Quebec, and the remaining area of the Northwest Territories south of 60° N. latitude was divided between Manitoba and Ontario.

<sup>6</sup> Island of Newfoundland only.

<sup>7</sup> Includes Coast of Labrador.

The source of the powers of the Provincial Governments of Canada is the British North America Act, 1867 (30-31 Vict., c. 3 and amendments). Under Sect. 92 of the Act, the Legislature of each province may make laws exclusively in relation to the following matters: amendment of the constitution of the province except as regards the Lieutenant-Governor; direct taxation within the province; borrowing of money on the credit of the province; establishment and tenure of provincial offices and appointment and payment of provincial officers; the management and sale of public lands belonging to the province and of the timber and wood thereon; the establishment, maintenance and management of public and reformatory prisons in and for the province; the establishment, maintenance and management of hospitals, asylums, charities and eleemosynary institutions in and for the province, other than marine hospitals; municipal institutions in the province; shop, saloon, tavern, auctioneer and other licences issued for the raising of provincial or municipal revenue; local works and undertakings other than interprovincial or international lines of ships, railways, canals, telegraphs, etc., or works which, though wholly situated within one province, are declared by the Federal Parliament to be for the general advantage either of Canada or of two or more provinces; the

incorporation of companies with provincial objects; the solemnization of marriage in the province; property and civil rights in the province; the administration of justice in the province, including the constitution, maintenance and organization of provincial courts both of civil and criminal jurisdiction, and including procedure in civil matters in these courts\*; the imposition of punishment by fine, penalty, or imprisonment for enforcing any law of the province relating to any of the aforesaid subjects; generally all matters of a merely local or private nature in the province.

Further, in and for each province the Legislature may, under Sect. 93, make laws exclusively in relation to education, subject to certain provisions. The purpose of these provisions was to preserve to a religious minority in any province the same privileges and rights in regard to education which it had at the date of Confederation, but the provincial Legislatures were not debarred from legislating on the subject of separate schools provided they did not thereby prejudicially affect privileges enjoyed before Confederation by such schools in the province. These powers, given to the four original provinces in Confederation, have, with some slight changes, been retained ever since and the more recently admitted provinces have assumed the same rights and responsibilities on their inclusion as units in the federation as were previously enjoyed by the older provinces.

### Subsection 1.—Newfoundland

The Government of Newfoundland consists of a Lieutenant-Governor, an Executive Council and a Legislative Assembly. The Executive Council consists of: the Premier and Minister of Economic Development and the Ministers of Justice, Finance, Health, Public Welfare, Fisheries and Co-operatives, Natural Resources, Education, Provincial Affairs, Labour, Public Works and Supply.

The Legislative Assembly has 28 members, each member receiving a salary of \$1,500 and allowance of \$1,000. The salary of the Premier is \$7,000 and that of the Leader of the Opposition \$2,000 in addition to their salaries as members. The Speaker also receives an additional salary of \$2,000.

The Lieutenant-Governor, Hon. Sir Albert Joseph Walsh, K.C., LL.B., was commissioned Apr. 1, 1949. He was succeeded on Aug. 17, by the Hon. Sir Leonard Cecil Outerbridge, C.B.E., D.S.O. An election for members of the General Assembly was held on May 27, 1949. The standing of the parties was: Liberals 22, Progressive Conservatives 5, Independent 1. The Leader of the Liberal Party, the Hon. Joseph R. Smallwood, became the first Premier of the Province, the date of his appointment being Apr. 1, 1949. The members of the first Ministry were as follows:

\* A description of the provincial courts is given at pp. 109-115.

### 12.—Newfoundland Ministry as at Aug. 1, 1949

Office	Name	Date of Appointment
Premier and Minister of Economic Development.....	Hon. JOSEPH R. SMALLWOOD.....	Apr. 1, 1949
Minister of Justice.....	Hon. L. R. CURTIS, K.C.....	Apr. 1, 1949
Minister of Finance.....	Hon. H. W. QUINTON, C.M.G.....	July 29, 1949
Minister of Public Welfare.....	Hon. Dr. H. L. POTTLE, M.A.....	Apr. 4, 1949
Minister of Fisheries and Co-operatives.....	Hon. W. J. KEOUGH.....	July 29, 1949
Minister of Supply.....	Hon. P. S. FORSEY.....	July 29, 1949
Minister of Education.....	Hon. S. J. HEFFERTON.....	Apr. 4, 1949
Minister of Labour.....	Hon. C. H. BALLAM.....	Apr. 4, 1949
Minister of Natural Resources.....	Hon. E. RUSSELL.....	July 29, 1949
Minister of Health.....	Hon. J. R. CHALKER.....	July 29, 1949
Minister of Provincial Affairs.....	Hon. J. J. SPRATT.....	July 29, 1949
Minister of Public Works.....	Hon. E. S. SPENCER.....	June 22, 1949



### Subsection 2.—Prince Edward Island

The Government of Prince Edward Island consists of a Lieutenant-Governor, an Executive Council and a Legislative Assembly. The Executive Council of Prince Edward Island consists of: the President of the Council, Premier, Minister of Education, Provincial Secretary-Treasurer and Acting Minister of Industry and Natural Resources; the Attorney and Advocate General; the Minister of Health and Welfare; the Minister of Agriculture; the Acting Minister of Public Works and Highways; and four Ministers without portfolio. The Legislative Assembly has 30 members who serve for five years, 15 of whom are elected on a basis of manhood suffrage and the other 15 elected by property holders only.

The salary of the Premier is \$4,500 and that of the Ministers \$3,000. Each member of the Assembly is paid the sum of \$700 for each session attended by him and an additional amount of \$300, tax free, as indemnity for expenses incurred. The Speaker and the Leader of the Opposition are paid a further additional sum of \$400 and an additional amount of \$200, tax free, for indemnity incurred.

### 13.—Lieutenant-Governors of Prince Edward Island, 1873-1949, Legislatures and Premiers, 1934-49, and Present Ministry as at Aug. 1, 1949

NOTE. — The Lieutenant-Governor of a province is addressed "His Honour" and is also styled "Honourable" throughout his life. Where a knighthood or other honour was conferred during the term of office, it is shown. Certain Lieutenant-Governors were knighted after their term had expired. Legislatures and Ministries from Confederation to 1923 are given at pp. 75-84 of the 1924 Year Book, and for 1924-34 at pp. 110-118 of the 1938 Year Book.

#### Lieutenant-Governors

Name	Date of Commission	Name	Date of Commission
WILLIAM ROBINSON.....	June 10, 1873	BENJAMIN ROGERS.....	June 1, 1910
Sir ROBERT HODGSON.....	July 4, 1874	A. C. MACDONALD.....	June 3, 1915
THOMAS H. HAVILAND.....	July 10, 1879	MURDOCK MCKINNON.....	Sept. 2, 1919
ANDREW ARCHIBALD MACDONALD...	July 18, 1884	FRANK R. HEARTZ.....	Sept. 8, 1924
JEDEDIAH S. CARVELL.....	Sept. 2, 1889	CHARLES DALTON.....	Nov. 19, 1930
GEORGE W. HOWLAN.....	Feb. 21, 1894	GEORGE D. DEBLOIS.....	Dec. 28, 1933
P. A. MCINTYRE.....	May 23, 1899	BRADFORD W. LEPAGE.....	Sept. 11, 1939
D. A. MACKINNON.....	Oct. 3, 1904	J. A. BERNARD.....	May 18, 1945

#### Legislatures, 1934-49<sup>1</sup>

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
July 23, 1935	18th General Assembly.....	5	Sept. 25, 1935.....	Apr. 21, 1939
May 18, 1939	19th General Assembly.....	4	Mar. 20, 1940.....	Aug. 20, 1943
Sept. 15, 1943	20th General Assembly.....	4	Feb. 15, 1944.....	Oct. 27, 1947
Dec. 11, 1947	21st General Assembly.....	2	Feb. 24, 1948.....	<sup>2</sup>

<sup>1</sup> The Ministries from 1934-49 were: 19th Ministry, sworn in Oct. 14, 1933, under the leadership of Hon. W. J. P. MacMillan, M.D., C.M.; 20th Ministry, sworn in Aug. 15, 1935, under the leadership of Hon. W. M. Lea; 21st Ministry, sworn in Jan. 14, 1936, under the leadership of Hon. T. A. Campbell, K.C.; 22nd Ministry, sworn in May 11, 1943, under the leadership of Hon. J. Walter Jones.

<sup>2</sup> Life of Legislature not yet expired.



### 13.—Lieutenant-Governors of Prince Edward Island, 1873-1949, Legislatures and Premiers, 1934-49, and Present Ministry as at Aug. 1, 1949—concluded

#### Twenty-Second Ministry

(Party standing at latest General Election, Dec. 11, 1947: 24 Liberals and 6 Progressive Conservatives.)

Office	Name	Date of Present Appointment
President of the Executive Council, Premier, Minister of Education, Provincial Secretary-Treasurer, and Acting Minister of Industry and Natural Resources.....	Hon. J. WALTER JONES.....	May 11, 1943
Attorney and Advocate General.....	Hon. FREDERIC ALFRED LARGE, K.C.....	May 8, 1944
Minister of Public Works and Highways.....	Vacant.	
Minister of Agriculture.....	Hon. W. F. ALAN STEWART.....	May 8, 1944
Minister of Health and Welfare.....	Hon. ALEXANDER W. MATHESON, K.C.....	Mar. 12, 1948
Minister without portfolio.....	Hon. J. WILFRID ARSENAULT.....	Feb. 12, 1948
Minister without portfolio.....	Hon. HARRY COX.....	Apr. 12, 1948
Minister without portfolio.....	Hon. C. CLEVELAND BAKER.....	Apr. 16, 1949
Minister without portfolio.....	Hon. EUGENE CULLEN.....	Apr. 16, 1949

### Subsection 3.—Nova Scotia

The Province of Nova Scotia has a Lieutenant-Governor, Executive Council and a House of Assembly. The Ministry or Cabinet, styled the Executive Council, consists of the Premier and Provincial Treasurer; the Attorney General who is also Minister of Labour, Acting Minister of Public Health, Acting Minister of Public Welfare, and Acting Registrar General; the Minister of Mines who is also Provincial Secretary and Minister of Municipal Affairs; the Minister of Highways and Public Works; the Minister of Agriculture and Marketing who is also Minister of Lands and Forests; the Minister of Trade and Industry, and two Ministers without portfolio one of whom is in charge of the administration of the Nova Scotia Liquor Control Act. The House of Assembly formerly had 30 members but this number was increased by legislation in 1948 to 37 effective at the next General Election. The members of the Assembly are elected for five years, the maximum duration of its existence.

The Premier of the Province receives a salary of \$9,000 per annum and Cabinet Ministers a salary of \$8,000 per annum. Each member of the House of Assembly receives a sessional indemnity of \$1,600 and an allowance of \$800 for expenses incidental to the discharge of his duties. The Leader of the Opposition receives an allowance of \$1,000 in addition to his sessional indemnity.

### 14.—Lieutenant-Governors of Nova Scotia, 1867-1949, Legislatures and Premiers, 1934-49, and Present Ministry as at Aug. 1, 1949

NOTE.—See headnote to Table 13, p. 118.

#### Lieutenant-Governors

Name	Date of Commission	Name	Date of Commission
Lt.-Gen. Sir WILLIAM F. WILLIAMS..	July 1, 1867	DAVID MACKEEN.....	Oct. 19, 1915
Major-Gen. Sir C. HASTINGS DOYLE	Oct. 18, 1867	MACCALLUM GRANT.....	Nov. 29, 1916
Lt.-Gen. Sir C. HASTINGS DOYLE...	Jan. 31, 1868 <sup>1</sup>	MACCALLUM GRANT.....	Mar. 21, 1922 <sup>1</sup>
JOSEPH HOWE.....	May 1, 1873	J. ROBSON DOUGLAS.....	Jan. 12, 1925
Sir ADAMS G. ARCHIBALD.....	July 4, 1873	JAMES C. TORY.....	Sept. 14, 1925
MATTHEW HENRY RICHEY.....	July 4, 1883	FRANK STANFIELD.....	Nov. 19, 1930
A. W. McLELAN.....	July 9, 1888	WALTER H. COVERT.....	Oct. 5, 1931
Sir MALACHY BOWES DALY.....	July 11, 1890	ROBERT IRWIN.....	Apr. 7, 1937
Sir MALACHY BOWES DALY.....	July 29, 1895 <sup>1</sup>	FREDERICK F. MATHERS, K.C.....	May 31, 1940
ALFRED G. JONES.....	July 26, 1900	Lt.-Col. H. ERNEST KENDALL, M.D.	Nov. 17, 1942
DUNCAN C. FRASER.....	Mar. 27, 1906	J. A. D. McCURDY, M.B.E.....	Aug. 12, 1947
JAMES D. MCGREGOR.....	Oct. 18, 1910		

<sup>1</sup> Second term.

#### 14.—Lieutenant-Governors of Nova Scotia, 1867-1949, Legislatures and Premiers, 1934-49, and Present Ministry as at Aug. 1, 1949—concluded

##### Legislatures, 1934-49<sup>1</sup>

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
Aug. 22, 1933	17th General Assembly.....	4	Mar. 1, 1934.....	May 20, 1937
June 29, 1937	18th General Assembly.....	4	Mar. 1, 1938.....	Sept. 19, 1941
Oct. 28, 1941	19th General Assembly.....	4	Feb. 19, 1942.....	Sept. 12, 1945
Oct. 23, 1945	20th General Assembly.....	4	Mar. 14, 1946.....	April 27, 1949
June 9, 1949	21st General Assembly.....	2		

<sup>1</sup> The Ministries from 1934-49 were: 12th Ministry, sworn in Sept. 5, 1933, under the leadership of Hon. Angus L. Macdonald; 13th Ministry, sworn in July 10, 1940, under the leadership of Hon. A. S. MacMillan; 14th Ministry, sworn in Sept. 8, 1945, under the leadership of Hon. Angus L. Macdonald, P.C., K.C.

<sup>2</sup> Legislature not yet opened.

##### Fourteenth Ministry

(Party standing at latest General Election, June 9, 1949: 28 Liberals, 7 Progressive Conservatives and 2 Co-operative Commonwealth Federation.)

NOTE.—Ministers who have held office continuously are shown as at the date of original appointment, despite the formation of a new Ministry consequent upon the appointment of a new Premier.

Office	Name	Date of Present Appointment
Premier, President of Council and Provincial Treasurer.....	Hon. ANGUS L. MACDONALD, P.C., K.C., S.J.D.....	Sept. 8, 1945
Attorney General, Minister of Labour, Minister of Public Health (Acting), Minister of Public Welfare (Acting) and Registrar General (Acting).....	Hon. L. D. CURRIE, K.C.....	Sept. 8, 1945
Provincial Secretary, Minister of Mines and Minister of Municipal Affairs.....	Hon. MALCOLM A. PATTERSON.....	June 10, 1947
Minister of Agriculture and Marketing and Minister of Lands and Forests.....	Hon. A. W. MACKENZIE.....	Sept. 8, 1945
Minister of Trade and Industry.....	Hon. HAROLD CONNOLLY.....	Sept. 8, 1945
Minister of Highways and Public Works.....	Hon. MERRILL D. RAWDING.....	July 31, 1947
Minister without portfolio.....	Vacant.	
Minister without portfolio (in charge of administration of Nova Scotia Liquor Control Act).....	Hon. GEOFFREY STEVENS.....	Apr. 4, 1946

##### Subsection 4.—New Brunswick

The Province of New Brunswick in all essential features of provincial administration is similar to its neighbour, Nova Scotia. The Executive Council is composed of: the Premier and Attorney General, the Provincial Secretary-Treasurer and President of the Executive Council, the Minister of Public Works, the Minister of Lands and Mines, the Minister of Agriculture, the Minister of Health and Social Services, the Minister of Labour, the Minister of Education and of Federal and Municipal Relations, the Minister of Industry and Reconstruction and a Minister without portfolio who is the Chairman of the New Brunswick Electric Power Commission. The Legislative Assembly at present has 52 members who are elected for a term of five years.

The Premier receives a salary of \$5,000 which is in addition to any other portfolio which he may hold. The salary of Cabinet Ministers is \$5,000, the amount paid as indemnity to Members is \$1,500 and the Leader of the Opposition receives \$2,000 in addition. An allowance of \$1,000, in addition to the regular indemnity, is made to the Speaker.

# 15.—Lieutenant-Governors of New Brunswick, 1867-1949, Legislatures and Premiers, 1934-49, and Present Ministry as at Aug. 1, 1949

NOTE.—See headnote to Table 13, p. 118.

## Lieutenant-Governors

Name	Date of Commission	Name	Date of Commission
Major-Gen. Sir C. HASTINGS DOYLE	July 1, 1867	JAREZ B. SNOWBALL	Jan. 30, 1902
Col. F. P. HARDING	Oct. 18, 1867	L. J. TWEEDIE	Mar. 2, 1907
L. A. WILMOT	July 14, 1868	JOSIAH WOOD	Mar. 6, 1912
SAMUEL LEONARD TILLEY	Nov. 5, 1873	G. W. GANONG	June 29, 1916
E. BARRON CHANDLER	July 16, 1878	WILLIAM PUGSLEY	Nov. 6, 1917
ROBERT DUNCAN WILMOT	Feb. 11, 1880	WILLIAM F. TODD	Feb. 24, 1923
Sir SAMUEL LEONARD TILLEY	Oct. 31, 1885	Major-Gen. HUGH H. McLEAN	Dec. 11, 1928
JOHN BOYD	Sept. 21, 1893	Col. MURRAY MACLAREN	Feb. 5, 1935
JOHN A. FRASER	Dec. 20, 1893	W. G. CLARK	Mar. 5, 1940
A. R. McCLELLAN	Dec. 9, 1896	DAVID LAURENCE MACLAREN	Nov. 1, 1945

## Legislatures, 1934-49<sup>1</sup>

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
June 19, 1930	10th General Assembly	5	Feb. 12, 1931	May 22, 1935
June 27, 1935	11th General Assembly	4	Mar. 5, 1936	Oct. 26, 1939
Nov. 20, 1939	12th General Assembly	5	Apr. 4, 1940	July 10, 1944
Aug. 28, 1944	13th General Assembly	4	Feb. 20, 1945	May 18, 1948
June 28, 1948	14th General Assembly	2	Mar. 8, 1949	

<sup>1</sup> The Ministries from 1934-48 were: 19th Ministry, sworn in June 1, 1933, under the leadership of Hon. L. P. D. Tilley; 20th Ministry, sworn in July 16, 1935, under the leadership of Hon. A. A. Dysart; 21st Ministry, sworn in Mar. 13, 1940, under the leadership of Hon. J. B. McNair. <sup>2</sup> Life of Legislature not yet expired.

## Twenty-First Ministry

(Party standing at latest General Election, June 28, 1948: 47 Liberals and 5 Progressive Conservatives.)

NOTE.—Ministers who have held office continuously are shown as at the date of original appointment, despite the formation of a new Ministry consequent upon the appointment of a new Premier.

Office	Name	Date of Present Appointment
Premier and Attorney General	Hon. J. B. McNAIR, K.C.	Mar. 13, 1940
Provincial Secretary-Treasurer and President of Executive Council	Hon. J. J. HAYES DOONE	Jan. 10, 1940
Minister of Public Works	Hon. W. S. ANDERSON	July 16, 1938
Minister of Lands and Mines	Hon. RICHARD J. GILL	May 16, 1946
Minister of Agriculture	Hon. A. C. TAYLOR	July 16, 1935
Minister of Health and Social Services	Hon. F. A. McGRAND, M.D.	Sept. 27, 1944
Minister of Labour	Hon. SAMUEL E. MOOERS	Sept. 27, 1944
Minister of Education and of Federal and Municipal Relations	Hon. JAMES W. BRITTAIN	Nov. 2, 1948
Minister of Industry and Reconstruction	Hon. J. A. DOUCET	Sept. 27, 1944
Minister without portfolio	Hon. J. GASFARD BOUCHER	Mar. 13, 1940

## Subsection 5.—Quebec

The Executive Council is composed of the Lieutenant-Governor and his advisers, the Ministers of the Crown. These are: the Premier, Attorney General and President of the Executive Council; the Provincial Treasurer; the Minister of Lands and Forests; the Minister of Health; the Minister of Municipal Affairs; the Minister of Colonization; the Minister of Mines; the Minister of Agriculture;



the Minister of Roads; the Minister of Labour; the Minister of Game and Fisheries; the Minister of Public Works; the Minister of Social Welfare and of Youth; the Minister of Trade and Commerce; the Provincial Secretary; and six Ministers without portfolio. The Legislative Council has 24 members nominated for life by the Lieutenant-Governor in Council.

The Legislative Assembly has 92 members and, like the Legislative Council, has the power to bring forward bills relating to civil and administrative matters and to amend or repeal the laws that already exist. A bill, to be approved by the Lieutenant-Governor, must have received the assent of both Houses. Only the Legislative Assembly can bring forward a bill requiring the expenditure of public money. The extreme length of a Legislature is five years.

Salaries and allowances of the Premier, members of the Executive Council, Legislative Council and Legislative Assembly are fixed according to the Revised Statutes (1941), c. 4, as amended by 10 Geo. VI, c. 11, as follows: all members of the Legislative Assembly and Legislative Council receive \$3,000 per annum as salary and \$1,000 by way of allowances; in addition the Premier receives \$10,000 as salary and \$4,000 allowances; ministers with portfolio an additional \$6,000 as salary and \$2,000 allowances; ministers without portfolio an additional \$2,000 salary and \$2,000 allowances; the Leader of the Opposition in the Legislative Assembly an additional \$6,000 salary and \$2,000 allowances; the Leader of the Opposition in the Legislative Council an additional \$2,000 allowances.

#### 16.—Lieutenant-Governors of Quebec, 1867-1949, Legislatures and Premiers, 1934-49, and Present Ministry as at Aug. 1, 1949

NOTE.—See headnote to Table 13, p. 118.

##### Lieutenant-Governors

Name	Date of Commission	Name	Date of Commission
Sir NARCISSE F. BELLEAU.....	July 1, 1867	Sir FRANCOIS LANGELIER.....	May 5, 1911
Sir NARCISSE F. BELLEAU.....	Jan. 31, 1868 <sup>1</sup>	Sir PIERRE EVARISTE LEBLANC....	Feb. 9, 1915
RENE EDOUARD CARON.....	Feb. 11, 1873	Right Hon. Sir CHARLES FITZPATRICK.....	Oct. 21, 1918
LUC LETELIER DE ST-JUST.....	Dec. 15, 1876	L. P. BRODEUR.....	Oct. 31, 1923
THEODORE ROBITAILLE.....	July 26, 1879	N. PERODEAU.....	Jan. 8, 1924
L. F. R. MASSON.....	Oct. 4, 1884	Sir LOMER GOUIN.....	Dec. 31, 1923
A. R. ANGERS.....	Oct. 24, 1887	H. G. CARROLL.....	Apr. 2, 1929
Sir JOSEPH A. CHAPLEAU.....	Dec. 5, 1892	E. L. PATENAUDE.....	Apr. 29, 1934
LOUIS A. JETTE.....	Jan. 20, 1893	Major-Gen. Sir EUGENE FISSET....	Dec. 30, 1939
Sir LOUIS A. JETTE.....	Feb. 1, 1903 <sup>1</sup>	Major-Gen. Sir EUGENE FISSET....	June 20, 1945 <sup>1</sup>
Sir CHARLES A. P. PELLETIER.....	Sept. 15, 1908		

<sup>1</sup> Second term.

##### Legislatures, 1934-49<sup>1</sup>

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
Aug. 24, 1931	18th General Assembly.....	4	Nov. 3, 1931.....	Oct. 30, 1935
Nov. 25, 1935	19th General Assembly.....	1	Mar. 24, 1936.....	June 11, 1936
Aug. 17, 1936	20th General Assembly.....	4	Oct. 7, 1936.....	Sept. 23, 1939
Oct. 25, 1939	21st General Assembly.....	5	Feb. 20, 1940.....	June 29, 1944
Aug. 8, 1944	22nd General Assembly.....	4	Feb. 7, 1945.....	June 9, 1948
July 28, 1948	23rd General Assembly.....	1	Jan. 19, 1949.....	<sup>2</sup>

<sup>1</sup> The Ministries from 1934-49 were: 16th Ministry, sworn in July 8, 1920, under the leadership of Hon. L. A. Taschereau; 17th Ministry, sworn in June 11, 1936, under the leadership of Hon. A. Godbout; 18th Ministry sworn in Aug. 24, 1936, under the leadership of Hon. M. Duplessis; 19th Ministry, sworn in Nov. 10, 1939, under the leadership of Hon. A. Godbout; 20th Ministry, sworn in Aug. 30, 1944, under the leadership of Hon. Maurice L. Duplessis. <sup>2</sup> Life of Legislature not yet expired.



**16.—Lieutenant-Governors of Quebec, 1867-1949, Legislatures and Premiers, 1934-49, and Present Ministry as at Aug. 1, 1949—concluded**

**Twentieth Ministry**

(Party standing at latest General Election, July 28, 1948: 82 Union Nationale, 8 Liberals and 2 Independents.)

Office	Name	Date of Present Appointment
Premier, Attorney General and President of Executive Council.....	Hon. MAURICE L. DUFLESSIS.....	Aug. 30, 1944
Provincial Treasurer.....	Hon. ONESIME GAGNON.....	Aug. 30, 1944
Minister of Lands and Forests.....	Hon. J. S. BOURQUE.....	Aug. 30, 1944
Minister of Health.....	Hon. J. A. PAQUETTE.....	Aug. 30, 1944
Minister of Municipal Affairs.....	Hon. BONA DUSSAULT.....	Aug. 30, 1944
Minister of Roads.....	Hon. ANTONIO TALBOT.....	Aug. 30, 1944
Minister of Public Works.....	Hon. ROMEO LORRAIN.....	Aug. 30, 1944
Minister of Mines.....	Hon. C. DANIEL FRENCH.....	Dec. 15, 1948
Minister of Colonization.....	Hon. JOS. D. BEGIN.....	Aug. 30, 1944
Minister of Game and Fisheries.....	Hon. C. E. POULIOT.....	Aug. 30, 1944
Minister of Labour.....	Hon. ANTONIO BARRETE.....	Aug. 30, 1944
Minister of Trade and Commerce.....	Hon. PAUL BEAULIEU.....	Aug. 30, 1944
Minister of Agriculture.....	Hon. LAURENT BARRÉ.....	Aug. 30, 1944
Provincial Secretary.....	Hon. OMER COTÉ.....	Aug. 30, 1944
Minister of Social Welfare and of Youth.....	Hon. PAUL SAUVÉ.....	Sept. 18, 1946
Minister without portfolio.....	Hon. ANTONIO ELIE.....	Aug. 30, 1944
Minister without portfolio.....	Hon. TANCÈRE LABBÉ.....	Aug. 30, 1944
Minister without portfolio.....	Hon. MARC TRUDEL.....	Aug. 30, 1944
Minister without portfolio.....	Hon. PATRICE TARDIF.....	Aug. 30, 1944
Minister without portfolio.....	Hon. J. H. DELISLE.....	Aug. 30, 1944
Minister without portfolio.....	Hon. ANTOINE RIVARD.....	Dec. 15, 1948

**Subsection 6.—Ontario**

The Executive Council of Ontario consists of: the Premier, President of the Council and Provincial Treasurer; Minister of Agriculture; Minister of Mines; Attorney General and Minister of Education; Minister of Highways and Minister of Public Works; Minister of Municipal Affairs; Minister of Reform Institutions; Minister of Labour; Provincial Secretary and Registrar; Minister of Health; Minister of Planning and Development; Minister of Public Welfare; Minister of Lands and Forests; Minister of Travel and Publicity; and one Minister without portfolio.

The House of Assembly, the single-chamber Legislature of the Province, is composed of 90 members elected for five years on an adult suffrage basis.

Besides the regular departments the Niagara Parks Commission, the Ontario Municipal Board, the Hydro-Electric Power Commission of Ontario and the Ontario Northland Transportation Commission have been created.

Under the provisions of the Legislative Assembly Amendment Act, 1947 (11 Geo. VI, c. 55), each Member of the Assembly is paid an annual indemnity of \$2,000 and an allowance for expenses of \$1,000. The Speaker receives an additional indemnity at the annual rate of \$2,500; the Chairman of the Committee of the Whole an indemnity at the annual rate of \$1,000 and the Leader of the Opposition an additional indemnity of \$3,000 and an annual allowance for expenses of \$2,000. These special indemnities and allowances for the Speaker, Chairman of the Committee of the Whole and Leader of the Opposition are in addition to their indemnities and expense allowances as Members of the Legislature.

Members of the Cabinet receive the ordinary indemnity as Members of the Legislature of \$2,000 plus the \$1,000 expense allowance in addition to their salaries as Members of the Crown. The salary provided for Cabinet Ministers in the

Executive Council Act is \$10,000 but at the present time and for some years past the Members of the various Cabinets have voluntarily surrendered \$2,000 annually, drawing \$8,000 each as their Ministerial salary.

**17.—Lieutenant-Governors of Ontario, 1867-1949, Legislatures and Premiers, 1934-49, and Present Ministry as at Aug. 1, 1949**

NOTE.—See headnote to Table 13, p. 118.

**Lieutenant-Governors**

Name	Date of Commission	Name	Date of Commission
Major-Gen. H. W. STISED.....	July 1, 1867	Sir JOHN M. GIBSON.....	Sept. 22, 1908
W. P. HOWLAND.....	July 14, 1868	Lt.-Col. Sir JOHN S. HENDRIE....	Sept. 26, 1914
JOHN W. CRAWFORD.....	Nov. 5, 1873	LIONEL H. CLARKE.....	Nov. 27, 1919
D. A. MACDONALD.....	May 18, 1875	Col. HENRY COCKSHUTT.....	Sept. 10, 1921
JOHN BEVERLY ROBINSON.....	June 30, 1880	WILLIAM DONALD ROSS.....	Dec. 20, 1926
Sir ALEXANDER CAMPBELL.....	Feb. 8, 1887	Col. HERBERT ALEXANDER BRUCE.	Oct. 25, 1932
Sir GEORGE A. KIRKPATRICK.....	May 28, 1892	ALBERT MATTHEWS <sup>1</sup> .....	Nov. 23, 1937
Sir OLIVER MOWAT.....	Nov. 18, 1897	RAY LAWSON.....	Dec. 26, 1946
Sir WILLIAM MORTIMER CLARK.....	Apr. 20, 1903		

<sup>1</sup> Term extended November, 1942 to December, 1946.

**Legislatures, 1934-49<sup>1</sup>**

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
June 19, 1934	19th General Assembly.....	3	Feb. 20, 1935.....	Apr. 9, 1936
Oct. 6, 1937	20th General Assembly.....	2	Dec. 1, 1937.....	June 30, 1943
Aug. 4, 1943	21st General Assembly.....	8	Feb. 22, 1944.....	Mar. 24, 1945
June 4, 1945	22nd General Assembly.....	4	July 16, 1945.....	Apr. 27, 1948
June 7, 1948	23rd General Assembly.....	2	Feb. 10, 1949.....	<sup>2</sup>

<sup>1</sup> The Ministries from 1934-49 were: 11th Ministry, sworn in July 10, 1934, under the leadership of Hon. M. F. Hepburn; 12th Ministry, sworn in Oct. 21, 1942, under the leadership of Hon. G. D. Conant; 13th Ministry, sworn in May 18, 1943, under the leadership of Hon. H. C. Nixon; 14th Ministry, sworn in Aug. 17, 1943, under the leadership of Hon. George A. Drew; 15th Ministry sworn in Oct. 19, 1948, under the leadership of Hon. Thomas L. Kennedy; 16th Ministry sworn in May 4, 1949, under the leadership of Hon. Leslie M. Frost.

<sup>2</sup> Life of Legislature not yet expired.

**Sixteenth Ministry**

(Party standing at latest General Election, June 7, 1943; 53 Progressive Conservatives, 14 Liberals, 21 Co-operative Commonwealth Federation and 2 Labour-Progressive.)

Office	Name	Date of Present Appointment
Premier, President of the Council and Provincial Treasurer.....	Hon. LESLIE M. FROST, K.C.....	May 4, 1949
Minister of Agriculture.....	Hon. THOMAS L. KENNEDY.....	Aug. 17, 1943
Minister of Highways and Minister of Public Works.....	Hon. GEORGE H. DOUCETT.....	Aug. 17, 1943
Attorney General and Minister of Education..	Hon. DANA H. PORTER, K.C.....	Oct. 19, 1948
Minister without portfolio.....	Hon. GEORGE H. CHALLIES.....	Aug. 17, 1943
Minister of Municipal Affairs.....	Hon. GEORGE H. DUNBAR.....	Aug. 17, 1943
Minister of Labour.....	Hon. CHARLES DALEY.....	Aug. 17, 1943
Minister of Health.....	Hon. RUSSELL T. KELLEY.....	Jan. 7, 1946
Provincial Secretary and Registrar.....	Hon. GEORGE A. WELSH.....	May 4, 1949
Minister of Public Welfare.....	Hon. WILLIAM A. GODDFELLOW.....	Jan. 7, 1946
Minister of Planning and Development.....	Hon. WILLIAM GRIESINGER.....	May 4, 1949
Minister of Lands and Forests.....	Hon. HAROLD R. SCOTT.....	Nov. 28, 1946
Minister of Travel and Publicity.....	Hon. LOUIS P. CECILE.....	Oct. 19, 1948
Minister of Mines.....	Hon. WELAND S. GEMMELL.....	May 4, 1949
Minister of Reform Institutions.....	Hon. WILLIAM E. HAMILTON.....	July 15, 1949

### Subsection 7.—Manitoba

Besides its Lieutenant-Governor, Manitoba has a Provincial Executive composed of 12 men and a Legislative Assembly of 58 elected for five years.\* The Provincial Executive, headed by the Premier and President of the Council, who is also Minister of Dominion-Provincial Relations, consists of: the Minister of Agriculture and Immigration; the Provincial Treasurer; the Minister of Labour; the Municipal Commissioner; the Minister of Mines and Natural Resources who is also the Minister presiding over the Department of Industry and Commerce; the Attorney General; the Provincial Secretary; the Minister of Public Utilities, who is the Minister under the Manitoba Power Commission Act, the Manitoba Telephone Act and the Municipal and Public Utility Board Act; the Minister of Health and Public Welfare; the Minister of Education; the Minister of Public Works.

The Premier of the Province is paid a salary of \$7,050 per annum and the other members of the Cabinet a salary of \$5,287.80 each. The Members of the Legislature of this Province are each paid an indemnity and an allowance of \$2,000, being made up of \$1,350 indemnity and \$650 as an expense allowance. The Leader of the Opposition group in the Legislature is paid an additional amount of \$1,500. The Speaker of the Legislature is paid a salary of \$2,000 in addition to the indemnity and expense allowance.

\* An Act to amend the Legislative Assembly Act has been passed by the Manitoba Legislature to change the membership from 55 members plus the three representatives of the Armed Forces to 57 members effective at the next General Election.

### 18.—Lieutenant-Governors of Manitoba, 1870-1949, Legislatures and Premiers, 1934-49, and Present Ministry as at Aug. 1, 1949

NOTE.—See headnote to Table 13, p. 118.

#### Lieutenant-Governors

Name	Date of Commission	Name	Date of Commission
A. G. ARCHIBALD.....	May 20, 1870	Sir DANIEL H. McMILLAN.....	May 11, 1906 <sup>1</sup>
FRANCIS GOODSCHALL JOHNSON.....	Apr. 9, 1872	Sir DOUGLAS C. CAMERON.....	Aug. 1, 1911
ALEXANDER MORRIS.....	Dec. 2, 1872	Sir JAMES A. M. AIKINS.....	Aug. 3, 1916
JOSEPH E. CAUCHON.....	Oct. 8, 1877	Sir JAMES A. M. AIKINS.....	Oct. 17, 1921 <sup>1</sup>
JAMES C. AIKINS.....	Sept. 29, 1882	THEODORE A. BURROWS.....	Oct. 9, 1926
J. C. SCHULTZ.....	July 1, 1888	J. D. MCGREGOR.....	Jan. 25, 1929
J. C. PATTERSON.....	Sept. 2, 1895	WILLIAM JOHNSTON TUPPER.....	Dec. 1, 1934
Sir DANIEL H. McMILLAN.....	Oct. 10, 1900	ROLAND FAIRBAIRN McWILLIAMS..	Nov. 1, 1940

<sup>1</sup> Second term.

#### Legislatures, 1934-49<sup>1</sup>

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
June 16, 1932	19th General Assembly.....	4	Feb. 14, 1933.....	June 12, 1936
July 27, 1936	20th General Assembly.....	5	Feb. 18, 1937.....	Mar. 13, 1941
Apr. 22, 1941	21st General Assembly.....	5	Dec. 9, 1941.....	Sept. 8, 1945
Oct. 15, 1945	22nd General Assembly.....	2	Feb. 19, 1946.....	<sup>2</sup>

<sup>1</sup> The Ministries from 1934-49 were: 12th Ministry, sworn in Aug. 8, 1922, under the leadership of Hon. J. Bracken; 13th Ministry, sworn in Jan. 14, 1943, under the leadership of Hon. Stuart S. Garson, K.C.; 14th Ministry, sworn in Nov. 13, 1948, under the leadership of Hon. D. L. Campbell. <sup>2</sup> Life of Legislature not yet expired.



**18.—Lieutenant-Governors of Manitoba, 1870-1949, Legislatures and Premiers,  
1934-49, and Present Ministry as at Aug. 1, 1949—concluded**

**Fourteenth Ministry**

[Party standing at latest General Election, Oct. 15, 1945: 43 Coalition (25 Liberal-Progressives, 14 Progressive Conservatives, 2 Independent, 2 Social Credit), 12 Anti-Coalition (10 Co-operative Commonwealth Federation, 1 Independent Anti-Coalition, 1 Labour-Progressive). There were also 3 Service members with no party affiliation.]

Office	Name	Date of Present Appointment
Premier, President of the Council and Minister of Dominion-Provincial Relations.....	Hon. DOUGLAS L. CAMPBELL.....	Nov. 13, 1948
Minister of Agriculture and Immigration.....	Hon. FRANCIS C. BELL.....	Dec. 14, 1948
Provincial Treasurer.....	Hon. JOHN C. DRYDEN.....	Dec. 14, 1948
Minister of Labour.....	Hon. CHARLES E. GREENLAY.....	Dec. 14, 1948
Municipal Commissioner for Manitoba.....	Hon. SAUVEUR MARCOUX.....	Dec. 14, 1948
Minister of Mines and Natural Resources and Minister presiding over the Department of Industry and Commerce.....	Hon. JOHN S. McDIARMID.....	May 27, 1932
Attorney-General.....	Hon. JAMES O. McLENAGHEN.....	May 3, 1941
Provincial Secretary.....	Hon. WALLACE C. MILLER.....	Dec. 14, 1948
Minister of Public Utilities.....	Hon. WILLIAM MORTON.....	Feb. 5, 1944
Minister of Health and Public Welfare.....	Hon. IVAN SCHULTZ.....	Feb. 5, 1944
Minister of Education.....	Hon. C. RHODES SMITH.....	Dec. 14, 1948
Minister of Public Works.....	Hon. ERRICK F. WILLIS.....	Nov. 4, 1940

**Subsection 8.—Saskatchewan**

The Executive Council of Saskatchewan has 11 members: the Premier, President of the Council, and Minister of Public Health; the Provincial Treasurer; the Attorney General; the Minister of Natural Resources and Industrial Development; the Minister of Municipal Affairs; the Minister of Social Welfare and Rehabilitation; the Provincial Secretary; the Minister of Highways and Transportation; the Minister of Education; the Minister of Labour; the Minister of Co-operation and Co-operative Development; the Minister of Agriculture; and the Minister of Public Works and Minister of Telephones and Telegraphs. The statutory number of members of the Legislative Assembly is 52 elected for a term of five years.

The Premier receives \$6,500 and each Cabinet Minister \$5,000 annually in addition while the Leader of the Opposition, the Speaker and the Deputy Speaker receive an additional \$2,500, \$1,500 and \$600, respectively. The annual salary of members of the Legislature is \$2,000 together with \$1,000 expenses.



# 19.—Lieutenant-Governors of Saskatchewan, 1905-1949, Legislatures and Premiers, 1934-49, and Present Ministry as at Aug. 1, 1949

NOTE.—See headnote to Table 13, p. 118.

## Lieutenant-Governors

Name	Date of Commission	Name	Date of Commission
A. E. FORGET.....	Aug. 24, 1905	Lt.-Col. H. E. MUNROE, O.B.E....	Mar. 31, 1931
GEORGE W. BROWN.....	Oct. 5, 1910	A. P. McNAB.....	Sept. 10, 1936
Sir RICHARD STUART LAKE.....	Oct. 6, 1915	THOMAS MILLER.....	Feb. 27, 1945
H. W. NEWLANDS.....	Feb. 17, 1921	REGINALD J. M. PARKER.....	June 22, 1945
H. W. NEWLANDS.....	Feb. 22, 1926 <sup>1</sup>	J. M. URRICH.....	Mar. 24, 1948

<sup>1</sup> Second term.

## Legislatures, 1934-49<sup>1</sup>

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
June 19, 1934	8th General Assembly.....	4	Nov. 15, 1934.....	May 14, 1938
June 8, 1938	9th General Assembly.....	6	Jan. 19, 1939.....	May 10, 1944
June 15, 1944	10th General Assembly.....	5	Oct. 19, 1944.....	May 19, 1948
June 24, 1948	11th General Assembly.....	2	Feb. 10, 1949.....	<sup>2</sup>

<sup>1</sup> The Ministries from 1934-49 were: 6th Ministry, sworn in July 19, 1934, under the leadership of Hon. J. G. Gardiner; 7th Ministry, sworn in Nov. 1, 1935, under the leadership of Hon. W. J. Patterson; 8th Ministry, sworn in July 10, 1944, under the leadership of Hon. T. C. Douglas. <sup>2</sup> Life of Legislature not yet expired.

## Eighth Ministry

(Party standing at latest General Election, June 24, 1948: 31 Co-operative Commonwealth Federation; 19 Liberals, 1 Independent and 1 Liberal Progressive-Conservative.)

NOTE.—Ministers who have held office continuously are shown as at the date of original appointment despite the formation of a new Ministry consequent upon the appointment of a new Premier.

Office	Name	Date of Present Appointment
Premier, President of Council and Minister of Public Health.....	Hon. T. C. DOUGLAS.....	July 10, 1944
Provincial Treasurer.....	Hon. C. M. FINES.....	July 10, 1944
Attorney General.....	Hon. J. W. CORMAN.....	July 10, 1944
Minister of Natural Resources and Industrial Development.....	Hon. J. H. BROCKELBANK.....	Aug. 4, 1948
Minister of Municipal Affairs.....	Hon. L. F. MCINTOSH.....	Aug. 4, 1948
Minister of Social Welfare and Rehabilitation.....	Hon. J. H. STURDY.....	Aug. 4, 1948
Provincial Secretary.....	Hon. C. C. WILLIAMS.....	Aug. 4, 1948
Minister of Highways and Transportation.....	Hon. J. T. DOUGLAS.....	July 10, 1944
Minister of Education.....	Hon. W. S. LLOYD.....	July 10, 1944
Minister of Labour.....	Hon. C. C. WILLIAMS.....	July 10, 1944
Minister of Co-operation and Co-operative Development.....	Hon. L. F. MCINTOSH.....	July 10, 1944
Minister of Agriculture.....	Hon. I. C. NOLLET.....	Jan. 8, 1946
Minister of Public Works, Minister of Telephones and Telegraphs.....	Hon. J. A. DARLING.....	Aug. 4, 1948

## Subsection 9.—Alberta

There are ten members of the Executive Council of Alberta: the Premier and Provincial Treasurer; the Minister of Agriculture; the Minister of Economic Affairs; the Minister of Education; the Minister of Public Works who is also responsible for the Department of Railways and Telephones; the Minister of Mines and Minerals, and Lands and Forests; the Minister of Health and Public Welfare; the Minister of Municipal Affairs and Provincial Secretary; the Attorney General; and the Minister of Industries and Labour.

There are 57 members of the Legislative Assembly who are elected for a maximum period of five years.

The salary of the President of the Executive Council is \$9,000 and of a Cabinet Minister \$7,000. Since no party is recognized as the official opposition a special allowance of \$500 is paid to the Leaders of the Liberal and Co-operative Commonwealth Federation parties. The sessional indemnity for all Members of the Legislative Assembly is \$2,000 plus an expense allowance of \$1,000.

**20.—Lieutenant-Governors of Alberta, 1905-1949, Legislatures and Premiers, 1934-49, and Present Ministry as at Aug. 1, 1949**

NOTE.—See headnote to Table 13, p. 118.

**Lieutenant-Governors**

Name	Date of Commission	Name	Date of Commission
GEORGE H. V. BULYEA.....	Aug. 24, 1905	WILLIAM EGBERT.....	Oct. 20, 1925
GEORGE H. V. BULYEA.....	Oct. 5, 1910 <sup>1</sup>	WILLIAM L. WALSH.....	Apr. 24, 1931
ROBERT GEORGE BRETT.....	Oct. 6, 1915	PHILIP C. H. PRIMROSE.....	Sept. 10, 1936
ROBERT GEORGE BRETT.....	Oct. 20, 1920 <sup>1</sup>	J. C. BOWEN.....	Mar. 20, 1937

<sup>1</sup> Second term.

**Legislatures, 1934-49<sup>1</sup>**

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
June 19, 1930	7th General Assembly.....	5	Jan. 29, 1931.....	July 22, 1935
Aug. 22, 1935	8th General Assembly.....	9	Feb. 6, 1936.....	Feb. 16, 1940
Mar. 21, 1940	9th General Assembly.....	4	Feb. 20, 1941.....	July 7, 1944
Aug. 8, 1944	10th General Assembly.....	5	Feb. 22, 1945.....	July 16, 1948
Aug. 17, 1948	11th General Assembly.....	2	Feb. 17, 1949.....	<sup>2</sup>

<sup>1</sup> The Ministries from 1934-48 were: 6th Ministry, sworn in July 10, 1934, under the leadership of Hon. R. G. Reid; 7th Ministry, sworn in Sept. 3, 1935, under the leadership of Hon. Wm. Aberhart; 8th Ministry sworn in May 31, 1943, under the leadership of Hon. Ernest C. Manning. <sup>2</sup> Life of Legislature not yet expired.

**Eighth Ministry**

(Party standing at latest General Election, Aug. 17, 1948: 51 Social Credit, 2 Co-operative Commonwealth Federation, 2 Liberals, 1 Independent Social Credit, and 1 Independent.)

NOTE.—Ministers who have held office continuously are shown as at the date of original appointment despite the formation of a new Ministry consequent upon the appointment of a new Premier. Where two dates are shown the first denotes the original appointment to the Ministry and the second to the portfolio held at present.

Office	Name	Date of Present Appointment
Premier and Provincial Treasurer.....	Hon. ERNEST C. MANNING.....	May 31, 1943
Attorney General.....	Hon. LUCIEN MAYNARD.....	June 1, 1943
Minister of Education.....	Hon. IVAN CASEY.....	Feb. 21, 1948
Minister of Mines and Minerals, and Lands and Forests.....	Hon. NATHAN E. TANNER.....	Jan. 5, 1937
Minister of Public Works and Minister of Railways and Telephones.....	Hon. D. B. MACMILLAN.....	May 8, 1948
Minister of Health and Minister of Public Welfare.....	Hon. W. W. CROSS, M.D.....	Sept. 3, 1935
Minister of Economic Affairs.....	Hon. ALFRED J. HOOKE.....	Apr. 20, 1945
Minister of Municipal Affairs and Provincial Secretary.....	Hon. C. E. GERHART.....	June 1, 1943
Minister of Agriculture.....	Hon. D. A. URE.....	May 8, 1948
Minister of Industries and Labour.....	Hon. J. L. ROBINSON.....	May 8, 1948

Subsection 10.—British Columbia

British Columbia has a Lieutenant-Governor and an Executive Council composed of: the Premier and President of the Council; Provincial Secretary and Minister of Health and Welfare; Attorney General; and the Ministers of Lands and Forests, Finance, Agriculture, Mines and Municipal Affairs, Public Works, Railways, Trade and Industry and Fisheries, Labour, and Education. The Legislative Assembly, elected for five years, has 48 members.

Members of the Executive Council and the Legislative Assembly receive Sessional Allowances of \$2,000 and \$1,000 for expenses. The Premier receives a salary of \$9,000 and Members of the Executive Council \$7,500 in addition. The Leader of the Opposition has a special allowance of \$2,000 and the Speaker and Deputy Speaker receive allowances of \$1,800 and \$500, respectively.

21.—Lieutenant-Governors of British Columbia, 1871-1949, Legislatures and Premiers, 1934-49, and Present Ministry as at Aug. 1, 1949

NOTE.—See headnote to Table 13, p. 118.

Lieutenant-Governors

Name	Date of Commission	Name	Date of Commission
J. W. TRUTCH.....	July 5, 1871	Sir FRANK S. BARNARD.....	Dec. 5, 1914
ALBERT NORTON RICHARDS.....	June 27, 1876	Col. EDWARD G. PRIOR.....	Dec. 9, 1919
CLEMENT F. CORNWALL.....	June 21, 1881	WALTER C. NICHOL.....	Dec. 24, 1920
HUGH NELSON.....	Feb. 8, 1887	R. RANDOLPH BRUCE.....	Jan. 21, 1926
EDGAR DEWDNEY.....	Nov. 1, 1892	J. W. FORDHAM JOHNSON.....	July 18, 1931
THOMAS R. MCINNIS.....	Nov. 18, 1897	ERIC W. HAMBER.....	Apr. 29, 1936
Sir HENRI G. JOLY DE LOTBINIERE..	June 21, 1900	Lt.-Col. WILLIAM C. WOODWARD..	Aug. 29, 1941
JAMES DUNSMUIR.....	May 11, 1906	Col. the Hon. CHARLES ARTHUR	
T. W. PATERSON.....	Dec. 3, 1909	BANKS, C.M.G.....	Oct. 1, 1946

Legislatures, 1934-49<sup>1</sup>

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
Nov. 2, 1933	18th General Assembly.....	4	Feb. 20, 1934.....	Apr. 15, 1937
June 1, 1937	19th General Assembly.....	5	Oct. 26, 1937.....	July 22, 1941
Oct. 21, 1941	20th General Assembly.....	4	Dec. 4, 1941.....	Aug. 31, 1945
Oct. 25, 1945	21st General Assembly.....	5	Feb. 21, 1946.....	Apr. 16, 1949
June 15, 1949	22nd General Assembly.....	2	—	<sup>2</sup>

<sup>1</sup> The Ministries from 1934-49 were: 22nd Ministry sworn in Nov. 15, 1933, under the leadership of Hon. T. D. Pattullo; 23rd Ministry, sworn in Dec. 10, 1941, under the leadership of Hon. John Hart; 24th Ministry, sworn in Dec. 29, 1947, under the leadership of Hon. B. I. Johnson, M.B.E. <sup>2</sup> Life of Legislature not yet expired.

Twenty-Fourth Ministry

[Party standing at latest General Election, June 15, 1949: 39 Coalition, 7 Co-operative Commonwealth Federation, 1 Independent and 1 Labour.]

Office	Name	Date of Present Appointment
Premier and President of the Council.....	Hon. BYRON INGEMAR JOHNSON, M.B.E..	Dec. 29, 1947
Provincial Secretary and Minister of Health and Welfare.....	Hon. GEORGE SHARRATT PEARSON.....	Dec. 29, 1947
Attorney General.....	Hon. GORDON SYLVESTER WISMER, K.C..	Dec. 29, 1947
Minister of Lands and Forests.....	Hon. EDWARD TOURTELLOTT KENNEY..	Dec. 29, 1947
Minister of Finance.....	Hon. HERBERT ANSCOMB.....	Dec. 29, 1947
Minister of Agriculture.....	Hon. HENRY ROBSON BOWMAN.....	July 21, 1949
Minister of Mines and Minister of Municipal Affairs.....	Hon. RODERICK CHARLES MACDONALD...	Dec. 29, 1947
Minister of Public Works.....	Hon. ERNEST CRAWFORD CARSON.....	Dec. 29, 1947
Minister of Railways, Minister of Trade and Industry and Minister of Fisheries.....	Hon. LESLIE HARVEY EYES.....	Dec. 29, 1947
Minister of Labour.....	Hon. JOHN HENRY CATES.....	July 21, 1949
Minister of Education.....	Hon. WILLIAM THOMAS STRAITH, K.C., B.A., LL.B.	Dec. 29, 1947



### Subsection 11.—Yukon and the Northwest Territories

**Yukon.**—The Yukon Act provides for a local government composed of a Chief Executive, styled Commissioner, who is appointed by the Governor in Council, and an elective Territorial Council of three members having a three-year tenure of office. The Yukon Territorial Council performs much the same functions as do the Provincial Governments. The Commissioner functions in lieu of the Provincial Cabinet and the three members of the Territorial Council function in lieu of the Provincial Legislature. The seat of local government is at Dawson, but the Commissioner acts under instructions from the Governor in Council or the Minister of Mines and Resources at Ottawa.

#### COMMISSIONER

JOHN EDWARD GIBBEN.....Sept. 13, 1947

#### TERRITORIAL COUNCIL

(Three members elected 1949, for 3 years)

Dawson District..... CHARLES J. LELIEVRE  
Whitehorse District..... R. GORDON LEE  
Mayo District..... ERNEST J. CORP

**Northwest Territories.**—The government of the Northwest Territories is vested in the Commissioner, assisted by a Council composed of six members all of whom are appointed by the Governor in Council. The administration of the various Acts, Ordinances and Regulations pertaining to the Northwest Territories is supervised by the Director of the Lands and Development Services Branch, Department of Mines and Resources, who is also Deputy Commissioner. The seat of government is at Ottawa.

#### TERRITORIAL COUNCIL

Commissioner..... HUGH L. KEENLEYSIDE.  
Deputy Commissioner..... ROY A. GIBSON.  
Members of the Council.... LOUIS C. AUDETTE, HAROLD B. GODWIN, DONALD M.  
MACKAY, JOHN G. MCNIVEN, STUART T. WOOD.  
Secretary..... JAMES G. WRIGHT.

### Section 3.—Municipal Government\*

The earliest local government in Canada was carried out by the seigniors of New France, who along with military command and the administration of justice, bore the responsibilities of appointing justices of the peace and clerks of roads. Some were soon replaced by a 'syndic' elected by the people, the first in 1644, though a mayor and two aldermen had briefly held office in the city of Quebec in 1643. However, the 'syndics' fell into disuse, and powers were delegated by the governor to officials. The city of Quebec was incorporated in 1831, and a system of local government for the Province, decreed in 1840, was remodelled by Acts of 1845, 1847, 1850 and 1860.

Meanwhile, in the maritime region, Saint John had attained the distinction of becoming Canada's first incorporated city in 1784. Incorporation of Halifax came in 1849 and Charlottetown in 1855. In Ontario the Parish and Town Officers Act

\* Prepared in the Municipal Finance Section, Public Finance Division, Dominion Bureau of Statistics,



of 1793 provided for an annual meeting in a parish or township to appoint local officers but these were responsible to Parliament and the courts and the meetings had no law-making powers. Brockville, in 1832, gained some local powers from the Governor in Council which had previously been exercised through the courts. Other localities soon followed suit, and in 1834 York was incorporated as the self-governing city of Toronto. Further steps led to the Municipal Act of 1849, which is the foundation of the local government of today in Ontario and which later provided a model for the western provinces. Subsequently, Acts have been passed in all provinces governing aspects of municipal incorporation, powers and duties.

Municipal government in every province of Canada existed in at least elementary form before Confederation. With such a background, the provision of the British North America Act that jurisdiction over municipal affairs would rest with the provinces has resulted, quite naturally, in dissimilarity in the organization of local government across the country. This stems not only from the difference in beginnings and subsequent independent growth in each province, but also from a variation in requirements arising out of geographical and population differences.

The situation remains in a state of flux, with constant amendment of provincial Acts and charters in the attempt to solve old problems and to meet new ones. Just as the call for new and additional services has enlarged the scope of Federal and provincial activities, the municipalities have had to assume responsibilities unheard of, or considered beyond their sphere of activity, a few decades ago. As a result, amendments to Acts have varied from those enlarging the powers and the boundaries of municipalities, to those establishing closer provincial control and greater financial aid.

A special article on the history of local government in Canada is planned for a later edition of the *Canada Year Book*.

The chief forms of municipal organization at present extant in the provinces of Canada are given in the following paragraphs.\*

**Newfoundland.**—This new Province has only one "city", St. John's. The remainder of the population is mostly dispersed in small settlements around the coastline, and only since the passage of the Local Administration Act of 1937 have a few of the larger of these been set up individually with local councils as "towns", or where two or three are close together, as "rural districts" (14 by 1948). These latter are not rural municipalities, but merely "towns" consisting of two or more settlements. Local affairs in the remainder of the Province are administered by the Provincial Government.

**Prince Edward Island.**—The "city" of Charlottetown and seven "towns", all incorporated by special Acts, comprise the total municipal organization in this Province. They include less than one-half of one per cent of its total area and only a quarter of its population. The remainder is not organized municipally, as the three counties are purely provincial administrative units.

**Nova Scotia.**—Municipal organization in Nova Scotia covers the whole of the Province. Halifax and Sydney are the only two "cities" and operate under special charters, with the latter also governed by some special legislation. "Towns", which number 41, operate under the Town Incorporation Act. There are no municipalities incorporated as villages. Cities and towns are independent of

\* Municipalities are summarized by type of organization on p. 133.

counties. The rural area is divided into 18 counties which in themselves do not represent units of local government. However, 12 of these counties each comprise one municipality, and the other six two each, making a total of 24 rural "municipalities".

**New Brunswick.**—The Province is wholly divided into 15 "counties" which are incorporated municipalities and have direct powers of local self-government in the rural areas. In effect, therefore, they are the rural municipalities. In most cases certain of their powers apply in urban municipalities as well. The three "cities" have special charters, and the 19 towns operate under the Towns Incorporation Act. There are also four "villages".

**Quebec.**—Municipal divisions in Quebec cover the more heavily settled portions, the remaining nine-tenths being governed by the Province as 'territories'. The organized area is divided into 76 "county" municipalities, which are themselves divided into local municipalities under the Municipal Code, designated as "village", and "township" or "parish" municipalities or just as "municipalities". The counties, as such, have no direct powers of taxation. Funds to finance the services falling within their jurisdiction are provided by the municipalities forming part thereof. Parts of some counties are not yet organized into incorporated units of local government, being in outlying districts with little or no population. In 1948 there were 317 villages and 1,084 townships and parishes. A small number of these are independent of the counties in which they are located. Of the 30 "cities", a few have special charters. The remainder, along with the 124 "towns", are governed by the Cities and Towns Act and numerous special Acts.

**Ontario.**—Slightly more than one-tenth of the area of Ontario is municipally organized, the remainder being governed entirely by the Provincial Government. The older section of the Province is divided into 43 "counties", five of which are united with others for administrative purposes. Although incorporated municipalities, each county is comprised of the "towns", "villages", and "townships" situated within its borders, which provide its revenues as in Quebec. There are 29 cities, 145 towns, 156 villages, 571 townships and 11 "improvement districts". Some of each are located in the northern districts of the Province, which is not organized into counties.

**Manitoba.**—Only the southern and settled section of the Province, comprising less than one-eighth of the area, is organized for local self-government. As in the three other western provinces, there is no county organization, and all municipalities are independent except of provincial control. There are four "cities", three with special charters and one governed by a number of special acts. General acts govern the 33 "towns", 27 "villages", 110 "rural municipalities" and five "suburban municipalities". An Act of 1944 authorizes organization of "local improvement districts" in unorganized or disorganized territory.

**Saskatchewan.**—All municipalities in Saskatchewan derive their powers from general acts which are designated with the name of the type of municipality. There are 8 "cities", 83 "towns", 398 "villages" and 303 "rural municipalities". The area so organized consists of most of the southern two-fifths of the Province. The remainder of this portion is administered for local purposes by the Province in unincorporated local "improvement districts". The northern three-fifths are sparsely populated and without local government.

**Alberta.**—Here also there are “cities”, “towns”, “villages” and rural municipalities known as “municipal districts”. The latter three classes come under general acts, while each of the seven cities has its own charter. There are 57 towns, 132 villages, and 59 municipal districts, but less than one-fifth of the Province is so organized. There are also some unincorporated “improvement districts” administered by the Province in less densely settled areas.

**British Columbia.**—This Province has less than 0.5 p.c. of its area organized into municipalities. Additional small areas have sufficient population to require administration of local activities by the Provincial Government. There are 34 “cities”, 35 “villages”, and 28 “districts”, the latter being chiefly rural municipalities; except for those adjacent to the principal cities of Victoria and Vancouver, which are largely urban in character. It should, however, be emphasized that the application of the name “city” is somewhat different from the commonly accepted meaning in that several of them have populations of less than one thousand and, perhaps half or more would not normally be incorporated as cities in any other province of Canada.

## 22.—Municipalities in Canada by Types of Organization and by Provinces, 1948<sup>1</sup>

Province	Cities	Towns	Villages	Total Urban	Rural	Total Local Municipalities	Counties	Total Incorporated Municipalities
	No.	No.	No.	No.	No.	No.	No.	No.
P. E. Island.....	1	7	—	8	—	8	—	8
Nova Scotia.....	2	41	—	43	24	67	—	67
New Brunswick...	3	19	4	26	15	41	—	41
Quebec.....	30	124	317	471	1,084	1,555	76	1,631
Ontario.....	29	145	156	330	582 <sup>2</sup>	912	38	950
Manitoba.....	4	33	27	64	115 <sup>3</sup>	179	—	179
Saskatchewan.....	8	83	398	489	303 <sup>4</sup>	792	—	792
Alberta.....	7	57	132	196	59 <sup>5</sup>	255	—	255
British Columbia.	34	—	35	69	28	97	—	97
<b>Totals.....</b>	<b>118</b>	<b>509</b>	<b>1,069</b>	<b>1,696</b>	<b>2,210</b>	<b>3,906</b>	<b>114</b>	<b>4,020</b>

<sup>1</sup> Newfoundland entered Confederation in 1949. See paragraph on municipal organization above.

<sup>2</sup> Includes 11 local improvement districts.

<sup>3</sup> Includes 5 units of self-government officially known as “suburban municipalities”.

<sup>4</sup> Does not include 81 improvement districts.

<sup>5</sup> Does not include 58 improvement districts.

On the basis of the 1941 Census, over 10,689,000 or 93 p.c. of the population of the nine provinces was contained in incorporated municipalities. The following table, showing the comparable situation for each province, gives an indication of the development of self-government from the standpoint of the local population. The 800,000 persons excluded comprised those on Indian Reserves and in areas that have not yet reached the stage of development where self-government is felt to be necessary or desirable.



**23.—Population of Incorporated Municipalities, by Provinces, 1941**

Province	Total Population	Population of Incorporated Municipalities			Percentage Municipal to Total Population
		Urban	Rural	Total	
	No.	No.	No.	No.	
Prince Edward Island.....	95,047	24,340	—	24,340	25.6
Nova Scotia.....	577,962	267,540	308,304	575,844	99.6
New Brunswick.....	457,401	143,423	312,153	455,576	99.6
Quebec.....	3,331,882	2,109,684	1,137,519	3,247,203	97.5
Ontario.....	3,787,655	2,338,633	1,316,133	3,654,766	96.5
Manitoba.....	729,744	321,873	344,648	666,521	91.3
Saskatchewan.....	895,992	295,146	528,532	823,678	91.9
Alberta.....	796,169	306,586	321,219	627,805	78.9
British Columbia.....	817,861	443,394	170,269	613,663	75.0
<b>Totals.....</b>	<b>11,489,713</b>	<b>6,250,619</b>	<b>4,438,777</b>	<b>10,689,396</b>	<b>93.0</b>

**Section 4.—Federal-Provincial Relations**

Material on this subject will be found at pp. 79-81 of the 1946 edition of the Year Book, at pp. 85-89 of the 1947 and at pp. 116-122 of the 1948-49 editions.

**PART III.—CANADA'S EXTERNAL RELATIONS****Section 1.—Canada's Growth in External Status**

The evolution of Canada in its external relations is reflected in the growth of its Department of External Affairs. A review of the organization and development of that Department is given at pp. 74-79 of the 1945 edition of the Year Book.

**Section 2.—Canada and the United Nations, 1948\***

An outline of the organization of the United Nations and Canada's place therein appears at pp. 82-86 of the 1946 Year Book. Additional material appeared at pp. 122-125 of the 1948-49 edition. The following material brings the record of Canada and the United Nations up to the end of 1948.

Despite the continued failure of its Permanent Members to agree, the United Nations had substantial success in dealing with many of the international problems which confronted it in 1948. The events of the year demonstrated that, although the organization lacks the means and authority to impose settlements in international disputes, it is at its best when dealing with differences which lend themselves to treatment by truce and mediation procedures. Thus in the Indonesian, India-Pakistan and Palestine disputes, the United Nations has been able to bring an impartial moderating influence to bear and, through this, to localize threatening conflicts. At the same time, numerous other disputes, which responded less readily to solution by compromise, confronted the United Nations in the course of the year. Among these the most intractable were: the attempts to reach agreements in the Atomic Energy Commission, in the Commission for Conventional Armaments, and in the Berlin currency problem.

A brief summary of United Nations action on the most important issues, and in particular of the part played by Canada follows.

\* Prepared by the United Nations Division, Department of External Affairs, Ottawa.



**Canada's Contribution during 1948.**—Although forced by the inadequacies of the security guarantees provided by the United Nations itself to participate in the discussions leading to the North Atlantic Treaty, Canada continued to regard membership in the United Nations as one of the essential principles underlying foreign policy. In the face of grave doubts concerning the value of the Security Council as the executive arm of the United Nations, Canada entered a two-year term of membership on Jan. 1, 1948. General A. G. L. McNaughton, as Canadian Permanent Delegate to the United Nations, acted as Canada's representative on the Council and also on the Atomic Energy Commission and the Commission for Conventional Armaments. Canada was represented on the Economic and Social Council until the end of the year, and did not stand for re-election.

The General Assembly met for two sessions during the year. From Apr. 16 to May 15 it held its second special session at the request of the Security Council to consider the future of Palestine. Canada was a member of the twelve-nation Subcommittee established to formulate provisional arrangements in Palestine which would come into effect after the expiry date of the United Kingdom mandate on May 15.

The first part of the third regular session of the General Assembly was held at Paris from September to December, 1948. The Canadian Delegation was headed at first, by the Rt. Hon. W. L. Mackenzie King, then Prime Minister, and later by the Hon. Lionel Chevrier, Minister of Transport, until Nov. 2 when the Hon. L. B. Pearson, Secretary of State for External Affairs, assumed the leadership. The Delegation included members of the Senate and House of Commons, with whom were associated delegates and advisers from the Department of Finance and the Department of External Affairs. The Assembly failed to complete its heavy agenda and it was decided to hold a second part of the third session at Lake Success in April, 1949.

**Admission of New Members.**—In 1948 only one new member state, Burma, was admitted to the United Nations. Applications by Italy and Ceylon were both rejected by the Soviet veto. The differences between the Soviet bloc and the non-Communist members prevented further consideration of other outstanding applications for membership, namely those of the Hashemite Jordan Kingdom, Ireland, Portugal and Austria, supported by the Western Powers, and those of Albania, Bulgaria, Finland, Hungary, the Mongolian Peoples' Republic and Roumania, backed by the U.S.S.R. The application of Israel was considered by the Security Council in December, 1948, but failed to secure the seven votes required to justify a favourable recommendation to the General Assembly.

**Indonesia.**—The Indonesian problem, which had been a concern of the Security Council since August, 1947, appeared to be well on its way to settlement when the year 1948 opened. On Jan. 17, the Netherlands and the Indonesian Republicans signed a military truce and agreed to a set of principles offered by a United Nations Committee of Good Offices to serve as a basis for a political settlement. This Renville agreement, which was supplemented two days later with additional principles, was acknowledged in February by the Security Council. A Canadian resolution commending the parties for concluding a truce agreement, and asking the Committee of Good Offices to return to Indonesia and assist the parties in working out a political settlement was also accepted by the Security Council.

After several months of fruitless negotiations a renewed attempt to reach a settlement was made in September on the basis of new proposals submitted by the United States member of the Committee of Good Offices. Despite further negotiations between high officials of the Netherlands and Republican Governments, the situation again became deadlocked and, on Dec. 14, the Netherlands Government announced its decision to go on with its intentions to form a United States of Indonesia under the Netherlands Crown. Five days later the Netherlands launched military operations and invaded Republican territories. This action was severely criticized by the Committee of Good Offices and, in the Security Council, Canada's representative deplored the resumption of military operations but opposed a United States resolution calling for a withdrawal of Netherlands troops on the ground that it could not be enforced.

**Palestine.**—Both in the Security Council and in the General Assembly Canada contributed to efforts to bring about a peaceful settlement of the Palestine conflict. Since the Commission which was to have carried out the Assembly's partition plan of November, 1947, was unable to function, a special session of the Assembly decided in May, 1948, to substitute for it a Mediator, whose proposals for a peaceful settlement were completed just before his assassination in September. The Mediator's proposals were modified by an Assembly decision of Dec. 11 which was supported by Canada. This provided for a Conciliation Commission to assist Arabs and Jews to reach an agreed settlement, to plan an international regime for Jerusalem and to supervise the repatriation of refugees.

Meanwhile Canada's representative in the Security Council had given full support to that body's unremitting efforts to check disorders in Palestine with the aid of the United Nations Mediator and a Truce Commission. Throughout the period of the first general cease-fire in June and the period of the truce imposed by the Security Council under threat of sanctions in July, Canada voted in favour of Security Council resolutions designed to reinforce the authority of United Nations personnel in Palestine and to restrain military drives which were renewed in October, November and December.

Canada was among those who held that Israel's application for membership should be considered at a later date.

**Korea.**—The Temporary Commission on Korea, with a mandate from the Assembly to "facilitate and expedite the national independence of Korea", acted as observer in the elections held in South Korea on May 10, and heard representations regarding the conduct of the elections. As instructed by the Assembly, the Commission continued in Korea to offer its services as a consultant, first to the newly elected Korean representatives, and later to the Government of the Republic of Korea. The Canadian member of the Commission was Dr. G. S. Patterson, of the Department of External Affairs. During the Third Session of the General Assembly, the Commission on Korea was reconstituted. The number of members was reduced from nine to seven, because of the decrease in the Commission's responsibilities, and Canada and the Ukraine were omitted from membership.

**Atomic Energy Commission.**—The record of the United Nations Atomic Energy Commission during 1948 is a discouraging one. Discussions of the Soviet Government's proposals of June, 1947, and of the organizational structure of an international control agency were continued but, after more than 240 meetings, the Commission reluctantly decided in May that it had reached an impasse which only the Security Council or the General Assembly could resolve.

In June the Security Council approved the resolution submitted by the representative of Canada that the whole question of the international control of atomic energy should be laid before the General Assembly "as a matter of special concern".

When the Assembly met at Paris, General A. G. L. McNaughton, speaking for Canada, proposed that the Assembly should approve the general findings and specific proposals put forward by the Atomic Energy Commission. After various amendments, this suggestion was adopted on Nov. 4. At the same time, the General Assembly requested the Atomic Energy Commission to resume its work in an attempt to resolve the impasse, and to take up any further questions which it might be "practicable and useful" to consider.

The record would have been more hopeful if the delegates of the U.S.S.R. had been prepared to put forward alternative plans for the international control of atomic energy that could be compared point by point with the majority proposals, but their suggestions have remained studiously vague.

Thus, in spite of the best efforts of nine out of the eleven members of the Atomic Energy Commission, the year 1948 did not see any significant advance on the road to international control of atomic energy, but rather a hardening of the positions taken up by the majority on the one hand, and by the Soviet Union and its satellites on the other.

**Commission for Conventional Armaments.**—The year 1948 saw equally limited progress in the field of general disarmament. As a member of the Security Council, Canada sat on the Commission for Conventional Armaments which is a subsidiary organ of the Council. Throughout the year, the deadlock between 'East' and 'West' prevented agreement in the Commission on the general principles which would govern the regulation and reduction of armaments and armed forces. The majority of the members, including Canada, took the view that adequate conditions of international security must be established to enable disarmament to proceed safely and equitably, and emphasized the need for a workable system of international inspection and control which would give assurance to all States that no State could take advantage of the disarmament of others. The U.S.S.R., on the other hand, favoured immediate reduction of armaments and armed forces, including atomic weapons, as an essential pre-condition of international security, and argued that any system of inspection and control must be established within the framework of the Security Council (i.e. subject to the veto). At the third session of the General Assembly a Soviet resolution along these lines was opposed by the majority of nations, including Canada, because of doubts as to whether the Soviet Union would permit effective international control and on the ground that the arbitrary arithmetical formula suggested by the U.S.S.R. would leave that country in a position of advantage in relation to those countries which, like the United States, the United Kingdom and Canada, had already substantially reduced their armed forces since the end of the War.

On Nov. 19, 1948, the General Assembly adopted a resolution that the Commission for Conventional Armaments should continue its work in formulating proposals for the general regulation and reduction of armaments.

**Berlin Currency Dispute.**—On Sept. 29 the Governments of the United Kingdom, United States and France referred the Berlin Dispute to the Security Council as a threat to international peace and security. The cause of the dispute, a Soviet imposed blockade on Berlin, had been in existence three months.



During these three months the Western Powers had attempted to meet Soviet objections to currency reform in Western occupied Germany. It was when these negotiations failed that the problem was referred to the Security Council. The Soviet representative denied the competence of the Security Council to deal with this problem and refused to take part in the Council's consideration of the Berlin dispute.

Between Oct. 6 and Oct. 25, members of the Security Council not direct parties to the dispute (including the Canadian representative) met to consider whether a basis for agreement existed. On Oct. 22 they presented a draft resolution calling upon the Soviet Union to raise the blockade and at the same time suggesting that the governments concerned should meet to discuss arrangements for the unification of Berlin currency. The "neutral" group then undertook to be represented on a committee of experts whose purpose was to seek a detailed agreement under which Berlin currency could be unified and communications restored.

This committee met at Paris and at Geneva under the chairmanship of Mr. N. A. Robertson, Canadian High Commissioner to the United Kingdom, in an attempt to reconcile the position of the countries concerned. At the end of the year its work was uncompleted.

**Other Political Questions.**—Other political questions discussed during the year included the alleged threat to international peace arising from events in Czechoslovakia, the future of Trieste, the India-Pakistan dispute, the relations of Spain with the United Nations, the trusteeship system applied to strategic areas, the report of the Special Committee on the Balkans, and the future of the former Italian colonies in Africa.

**Interim Committee.**—The Canadian delegation shared fully in the work of the Interim Committee established on an experimental basis by the General Assembly in November, 1947; to assist the Assembly in promoting international co-operation and in maintaining international peace and security. The Interim Committee met from the beginning of January to mid-July to consider the question of Korea; proposals for the revision of voting procedures in the Security Council; general principles of co-operation in maintaining international peace; and the advisability of giving a permanent mandate to the Interim Committee to assist the Assembly in discharging its responsibilities between sessions. Canada was a member, and a Canadian was the rapporteur of a nine-nation working group which, during May and June, prepared a draft recommendation to the General Assembly suggesting the types of Security Council decisions in which the veto should not operate.

**Economic and Social Council.**—The Sixth Session of the Council was held at New York, Feb. 2 to Mar. 11, and the Seventh at Geneva, July 19 to Sept. 7. At its Sixth Session the Council was largely concerned with general supervision over the work of subsidiary organs and specialized agencies, and with the development of working procedures adapted to the discharge of its functions. An *ad hoc* committee, of which Dr. G. F. Davidson, Deputy Minister of Welfare of the Department of National Health and Welfare was chairman, was set up to study the better co-ordination of the work of the Council, its commissions, and the specialized agencies. The Seventh Session of the Council dealt chiefly with substantive questions and made some progress with the planning or revising of international conventions relating to the suppression of the traffic in women and children; the prevention of prostitution; death certificates for missing persons; freedom of informa-



tion; and the gathering and international transmission of news. The scope of the Convention of 1931 limiting the manufacture and regulating the distribution of narcotic drugs was enlarged by a protocol to include the newly developed synthetic drugs; Canada became a signatory to this protocol during the Third Session of the General Assembly.

Canadian experts are members of the following Functional Commissions of the Economic and Social Council: Economic and Employment, Social, Population, Statistical, and Narcotic Drugs. Each of these held one meeting in 1948.

**Specialized Agencies.**—Two new organizations passed through the interim stage of their existence and became legally constituted specialized agencies; the International Refugee Organization, and the World Health Organization. Canada is a member of these and of eight other specialized agencies: the International Labour Organization; the International Civil Aviation Organization; the Food and Agriculture Organization; the United Nations Education, Scientific and Cultural Organization; the International Telecommunications Union; the International Bank for Reconstruction and Development; the International Monetary Fund; and the Universal Postal Union. In addition, there were several international conferences directed to the formation of three new agencies: the International Trade Organization; the Inter-governmental Maritime Consultative Organization; and the International Meteorological Organization. None of these is as yet established in final form.

## PART IV.—DIPLOMATIC REPRESENTATION\*

### Section 1.—Representatives of Canada in Other Countries

**Argentina:** (Established 1941.)

*Ambassador:* MR. J. D. KEARNEY, M.C., K.C.

Address: Bartolome Mitre, 478, Buenos Aires.

**Australia:** (Established 1939.)

*High Commissioner:* MAJOR-GENERAL THE HON. L. R. LAFLECHE, D.S.O.

Address: State Circle, Canberra.

**Belgium:** (Established 1939.)

*Ambassador:* MR. VICTOR DORÉ, C.M.G. (presented Letter of Credence Jan. 21, 1947).

Address: 46, Rue Montoyer, Brussels.

**Brazil:** (Established 1941.)

*Ambassador:* MR. J. S. MACDONALD (presented Letter of Credence June 3, 1948).

Address: Avenida President Wilson, 165, 7th Floor, Rio de Janeiro.

**Chile:** (Established 1942.)

*Ambassador:* MR. C. F. ELLIOTT, C.M.G., K.C. (presented Letter of Credence Apr. 3, 1947).

Address: Bank of London and South America Bldg., Santiago.

\* Revised by the Department of External Affairs, Ottawa, as at July 21, 1949.

**China:** (Established 1942.)

*Ambassador:* THE HON. T. C. DAVIS, K.C. (presented Letter of Credence May 21, 1947).

Address: No. 3 Ping Tsang Hsiang, Nanking.

**Cuba:** (Established 1945.)

*Minister:* DR. E. H. COLEMAN, C.M.G., K.C. (presented Letter of Credence Apr. 8, 1949).

Address: Avenida de las Misiones No. 17, Havana.

**Czechoslovakia:** (Established 1942.)

*Chargé d'Affaires ad interim:* MR. R. M. MACDONNELL.

Address: Krakowska 22, Prague, 2.

**Denmark:** (Established 1946.)

*Minister:* MR. H. LAUREYS (presented Letter of Credence July 12, 1947).

Address: Osterbrogade 26, Copenhagen.

**Finland:** (Established 1949.)

*Minister:* MR. T. A. STONE.

Address: c/o Canadian Legation, Strandvagen 7-C, Stockholm, Sweden.

**France:** (Established 1928.)

*Ambassador:* MAJOR GENERAL GEORGE P. VANIER, D.S.O., M.C. (presented Letter of Credence Dec. 20, 1944).

Address: 72 Avenue Foch, Paris XVI.

**Greece:** (Established 1943.)

*Ambassador:* MR. GEORGE L. MAGANN.

Address: 31 Queen Sofia Boulevard, Athens.

**Iceland:** (Established 1949.)

*Minister:* MR. E. J. GARLAND.

Address: c/o Canadian Legation, Fridtjof Nansens Plass 5, Oslo, Norway.

**India:** (Established 1946.)

*High Commissioner:* MR. W. F. CHIPMAN, K.C.

Address: 4 Aurangzeb Road, New Delhi.

**Ireland:** (Established 1940.)

*High Commissioner:* THE HON. W. F. A. TURGEON, K.C. (Nov. 6, 1946).  
(Absent.)

*Acting High Commissioner:* MR. D. M. JOHNSON (Feb. 1, 1949).

Address: 92 Merrian Square West, Dublin.

**Italy:** (Established 1947.)

*Ambassador:* MR. JEAN DÉSY, K.C. (presented Letter of Credence June 26, 1948).

Address: Via Saverio Mercadante 15, Rome.

**Luxembourg:** (Established 1945.)

*Minister:* MR. VICTOR DORÉ, C.M.G. (presented Letter of Credence Mar. 4, 1947).

Address: c/o Canadian Embassy, 46 Rue Montoyer, Brussels, Belgium.

**Mexico:** (Established 1944.)

*Ambassador:* MR. C. P. HÉBERT (presented Letter of Credence Feb. 24, 1949).

Address: Edificio Internacional, Paseo de la Reforma, No. 1, Mexico City.

**Netherlands:** (Established 1939.)

*Ambassador:* MR. P. DUPUY, C.M.G. (presented Letter of Credence Mar. 18, 1947).

Address: Sophialaan 1A, The Hague.

**New Zealand:** (Established 1940.)

*High Commissioner:* MR. A. RIVE (June 1, 1946).

Address: Government Life Insurance Bldg., Customs Quay, Wellington.

**Norway:** (Established 1943.)

*Minister:* MR. E. J. GARLAND (presented Letter of Credence Oct. 21, 1947).

Address: Fridtjof Nansens Plass 5, Oslo.

**Peru:** (Established 1944.)

*Ambassador:* MR. J. A. STRONG (presented Letter of Credence June 21, 1947).

Address: Edificio Boza, Plaza San Martin, Lima.

**Poland:** (Established 1942.)

*Chargé d'Affaires ad interim:* MR. K. P. KIRKWOOD (appointed Feb., 1947).

Address: Hotel Bristol, Warsaw.

**Sweden:** (Established 1947.)

*Minister:* MR. T. A. STONE (presented Letter of Credence June 10, 1949).

Address: Strandvagen 7-C, Stockholm.

**Switzerland:** (Established 1947.)

*Chargé d'Affaires ad interim:* MR. P. E. RENAUD.

Address: Thunstrasse 95, Berne.

**Turkey:** (Established 1947.)

*Ambassador:* MAJOR-GENERAL VICTOR W. ODLUM, C.B., C.M.G., D.S.O., V.D. (presented Letter of Credence Nov. 26, 1947).

Address: 211 Ayranci Baglari Kavaklidere, Ankara.

**Union of South Africa:** (Established 1940.)

*High Commissioner:* MR. E. D. MCGREER (Feb. 1, 1947).

Address: Grand Parade Bldg., Cape Town.

**Union of Soviet Socialist Republics:** (Established 1942.)

*Chargé d'Affaires ad interim:* MR. JOHN B. C. WATKINS (appointed August, 1948).

Address: 23 Starokonyushny Pereulok, Moscow.

**United Kingdom:** (Established 1880.)

*High Commissioner:* MR. L. D. WILGRESS (Mar. 16, 1949).

Address: Canada House, Trafalgar Square, London, S.W.1.

**United States of America:** (Established 1927.)

*Ambassador:* MR. H. H. WRONG (presented Letter of Credence Nov. 8, 1946).

Address: 1746 Massachusetts Avenue, Washington, D.C.

**Yugoslavia:** (Established 1948.)

*Minister:* MR. E. VAILLANCOURT (presented Letter of Credence Feb. 26, 1948).

Address: Garasaninova 20, Belgrade.

## MILITARY AND LIAISON MISSIONS

**Germany:**

*Head of Military Mission:* LIEUTENANT-GENERAL MAURICE POPE, C.B., M.C.

Address: Commonwealth House, 40 Johannesberger St., Wilmersdorf, Berlin.

**Japan:**

*Head of Liaison Mission:* MR. E. H. NORMAN.

Address: 16 Omote-Machi, 3 Chome, Akaska-Ku, Tokyo.

## CONSULATES

**Brazil:**

*Consul:* MR. J. C. VAN TIGHEM.

Address: Rua 7 d'Abril 252, São Paulo.

**China:**

*Consul General:* DR. GEORGE S. PATTERSON.

Address: 27 The Bund, Shanghai.

**Germany:**

*Consul:* MR. A. J. HICKS.

Address: Political Adviser's Office, A.P.O. 757, U.S. Army, Frankfurt.

**Portugal:**

*Consul General:* MR. L. S. GLASS.

Address: Rua Rodrigo Fonseca, 103-4°, Lisbon.

**United States of America:**

Boston 16, Mass.

*Consul:* MR. T. F. M. NEWTON.

Address: 532 Little Building, 80 Boylston Street.

Chicago 6, Ill.

*Consul General:* MR. E. TURCOTTE.

Address: Suite 800, Daily News Building, 400 W. Madison Street.

Detroit 26, Mich.

*Consul:* MR. JAMES J. HURLEY.

Address: 1035 Penobscot Building.



## CONSULATES—concluded

## United States of America—concluded

New York, N.Y.

*Consul General:* MR. H. D. SCULLY.

Address: 620 Fifth Avenue.

Portland, Maine.

*Honorary Vice Consul:* MR. A. LAFLEUR.

Address: Office 503, 120 Exchange Street.

San Francisco 4, Cal.

*Consul General:* MR. HARRY A. SCOTT.

Address: 400 Montgomery Street.

## Venezuela:

*Consul General:* MR. C. S. BISSETT.

Address: No. 805, Edificio America, Esquina Veroes, Caracas.

## Section 2.—Representatives of Other Countries in Canada

## Argentina: (Established 1941.)

*Ambassador:* HIS EXCELLENCY ATILIO E. GARCIA MELLID (Apr. 26, 1949).

Address: 193 Sparks Street, Ottawa.

## Australia: (Established 1940.)

*High Commissioner:* THE RT. HON. FRANCIS M. FORDE (Jan. 18, 1947).

Address: 24 Sussex Street, Ottawa.

## Belgium: (Established 1937.)

*Ambassador:* HIS EXCELLENCY VICOMTE DU PARC (Feb. 8, 1949).

Address: 170 Laurier Avenue East, Ottawa.

## Brazil: (Established 1941.)

*Ambassador:* HIS EXCELLENCY DR. ACYR DO NASCIMENTO PAES (Apr. 26, 1946).

Address: 400 Wilbrod Street, Ottawa.

## Chile: (Established 1942.)

*Ambassador:* HIS EXCELLENCY GENERAL ARNALDO CARRASCO (June 5, 1947).

Address: Suite 215, 56 Sparks Street, Ottawa.

## China: (Established 1942.)

*Ambassador:* HIS EXCELLENCY LIU CHIEH (June 7, 1947).

Address: 410 Besserer Street, Ottawa.

## Cuba: (Established 1945.)

*Minister:* HIS EXCELLENCY DR. MARIANO BRULL (Nov. 2, 1945).

Address: 499 Wilbrod Street, Ottawa.

**Czechoslovakia:** (Established 1942.)

*Chargé d'Affaires ad interim:* MR. STANISLAV KLIMA (Mar. 11, 1948).  
Address: 171 Clemow Avenue, Ottawa.

**Denmark:** (Established 1946.)

*Minister:* HIS EXCELLENCY G. B. HOLLER (Mar. 7, 1946).  
Address: 107 Sparks Street, Ottawa.

**Finland:** (Established 1947.)

*Minister:* HIS EXCELLENCY URHO VILPITON TOIVOLA (Jan. 7, 1948).  
Address: 140 Wellington Street, Ottawa.

**France:** (Established 1928.)

*Charge d'Affaires ad interim:* MR. JEAN BASDEVANT (June 12, 1949).  
Address: 42 Sussex Street, Ottawa.

**Greece:** (Established 1942.)

*Ambassador:* HIS EXCELLENCY CONSTANTINE SAKELLAROPOULO (Nov. 12, 1945).  
Address: Chateau Laurier, Ottawa.

**Iceland:** (Established 1947.)

*Minister:* HIS EXCELLENCY THOR THORS (Jan. 20, 1948).  
Address: Chateau Laurier, Ottawa.

**India:** (Established 1947.)

*High Commissioner:* THE HON. SARDAR HARDIT SINGH MALIK, C.I.E., O.B.E.  
(Sept. 3, 1947).  
Address: 114 Wellington Street, Ottawa.

**Ireland:** (Established 1939.)

*High Commissioner:* THE HON. JOHN J. HEARNE, S.C. (Aug. 18, 1939).  
Address: 140 Wellington Street, Ottawa.

**Italy:** (Established 1947.)

*Ambassador:* HIS EXCELLENCY MARIO DI STEFANO (Nov. 8, 1948).  
Address: 384 Laurier Avenue East, Ottawa.

**Luxembourg:** (Established 1949.)

*Minister:* HIS EXCELLENCY HUGUES LE GALLAIS (Nominated).

**Mexico:** (Established 1944.)

*Ambassador:* HIS EXCELLENCY PRIMO VILLA MICHEL (Sept. 15, 1947).  
Address: 11 Metcalfe Street, Ottawa.

**Netherlands:** (Established 1939.)

*Ambassador:* HIS EXCELLENCY DR. J. H. VAN RÖIJEN (Apr. 2, 1947).  
Address: 168 Laurier Avenue East, Ottawa.

**New Zealand:** (Established 1943.)

*High Commissioner:* THE HON. JAMES THORN (May 12, 1947).  
Address: 107 Wurtemberg Street, Ottawa.

**Norway:** (Established 1942.)

*Minister:* HIS EXCELLENCY DANIEL STEEN (Apr. 2, 1942).  
Address: 509 Plaza Building, 45 Rideau Street, Ottawa.

**Pakistan:** (Established 1949.)

*High Commissioner:* THE HON. MOHAMMED ALI (July 9, 1949).

Address: Chateau Laurier, Ottawa.

**Peru:** (Established 1944.)

*Ambassador:* HIS EXCELLENCY MANUEL CACHO SOUSA (May 12, 1949).

Address: 111 Sparks Street, Ottawa.

**Poland:** (Established 1942.)

*Minister:* HIS EXCELLENCY EUGENIUSZ JAN MILNIKIEL (Apr. 22, 1948).

Address: 183 Carling Avenue, Ottawa.

**Sweden:** (Established 1943.)

*Minister:* HIS EXCELLENCY PER WIJCKMAN (Aug. 4, 1943).

Address: 720 Manor Road, Rockcliffe Park.

**Switzerland:** (Established 1945.)

*Minister:* HIS EXCELLENCY DR. VICTOR NEF (Apr. 25, 1946).

Address: 5 Marlborough Avenue, Ottawa.

**Turkey:** (Established 1944.)

*Ambassador:* HIS EXCELLENCY NURULLAH ESAT SÜMER (nominated). (Nov. 12, 1947).

Address: Chateau Laurier, Ottawa.

**Union of South Africa:** (Established 1938.)

*High Commissioner:* MR. ALFRED ADRIAN ROBERTS (nominated). (Jan. 17, 1949).

Address: 15 Sussex Street, Ottawa.

**Union of Soviet Socialist Republics:** (Established 1942.)

*Chargé d'Affaires ad interim:* MR. MIKHAIL V. DEGTIAR (June 5, 1949).

Address: 285 Charlotte Street, Ottawa.

**United Kingdom:** (Established 1928.)

*High Commissioner:* THE HON. SIR ALEXANDER CLUTTERBUCK, K.C.M.G., M.C. (May 29, 1946).

Address: Earnscliffe, Ottawa.

**United States of America:** (Established 1927.)

*Ambassador:* HIS EXCELLENCY THE HON. LAURENCE A. STEINHARDT (Nov. 1, 1948).

Address: 100 Wellington Street, Ottawa.

**Uruguay:** (Established 1947.)

*Minister:* HIS EXCELLENCY CÉSAR MONTERO DE BUSTAMANTE (Mar. 11, 1948).

Address: 7 Delaware Avenue, Ottawa.

**Yugoslavia:** (Established 1947.)

*Minister:* HIS EXCELLENCY MATO A. JAKŠIĆ (July 8, 1948).

Address: 259 Daly Avenue, Ottawa.

## CHAPTER IV.—POPULATION\*

### CONSPECTUS

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*NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.*

The records accumulated at the decennial censuses of Canada since Confederation in 1867 to the latest census to date, 1941, make a valuable contribution to the demographic history of the nation. Each successive decade has added to the vast scope of the material; the detailed statistical analyses and the numerous monographs and studies available under the several aspects of demography and agriculture have made the Census a most important statistical measure of accomplishment and progress.

The salient aspects of population growth under each main heading shown in the conspectus are covered but not necessarily in any one edition. The Canada Year Book can do no more than summarize the broad results of the census. More detailed information can be obtained from the census publications.

The main legal reason for a periodic census under the constitution of Canada is to determine representation in the House of Commons: this, according to the British North America Act, is based on population (see p. 98). The payment of provincial subsidies on a per capita basis is adjusted annually on population estimated from the census data. In view of this each person is counted as belonging to the locality of his regular domicile, rather than to the place he may be at the date of enumeration.

The modern nation-wide census, however important this redistribution purpose, has a much wider sphere of usefulness. It constitutes, through the data collected directly from the people, a true measure of the social and economic progress of the country and can therefore be used in the regulation and general administration of public affairs, social security and rehabilitation programs, etc.

**History of the Census.**—An outline of the history of the census is given at pp. 96-97 of the 1947 edition of the Year Book.

\* This Chapter has been revised in the Census (Demography) Division, Dominion Bureau of Statistics.



**Growth of Population.**—A brief résumé of the population history of Canada from the first census in 1666, when 3,215 persons were enumerated, to the Census of 1941, when the figure was 11,506,655, places Canada among the leading countries of the Commonwealth in the rate of population growth. The inflow of capital and the opening up of new and vast areas with the consequent stimulation of immigration in the early part of the twentieth century, was the latest episode in the transformation of the central prairie region, which, in the course of 40 years, has been organized into provinces and developed with such promise. The total population of Canada at the end of the nineteenth century was approximately 5,400,000; it had about doubled this figure by 1931. The general increase in the population of European countries during the entire nineteenth century was approximately three-fold; Canada equalled this rate of progress during the 60 years from 1871 to 1931.

In the decade 1901-11 immigration alone totalled 1,800,000. This figure was the main factor in the gain of 34·2 p.c. registered by the total population of Canada in that decade, which was relatively larger than the growth of any modern country during the same period.

The next decade started out with an intensification of this immigration movement, but with the outbreak of the First World War a recession set in. The effects of that War upon the Canadian population were both direct and indirect. Nearly 60,000 members of the Canadian Forces died overseas and approximately 20,000 took their discharge in the United Kingdom. To these may be added 50,000 deaths from the war plague, influenza. In addition large numbers of British Isles residents, most of them recent immigrants, left Canada to join the Armed Forces of the United Kingdom and did not return; the same is true of enemy nationals who passed in considerable numbers into the United States immediately before and after the declaration of hostilities. The fluidity of the Canadian population accordingly rendered the War costly in personnel far beyond actual casualties. However, the net result over the ten years was a population increase of 21·9 p.c. or the largest increase for any modern country in that decade with the exception of Australia where an increase of 22·0 p.c. was recorded.

The Census of 1931 showed a further increase of 18·1 p.c. over 1921. Natural increase and immigration contributed 1,325,256 and 1,509,136, respectively, although the net gain was only 1,588,837 since estimated emigration was 1,245,555 for the ten years. Census returns of Great Britain for 1921-31 showed an increase of 4·7 p.c., equalling that of the previous decade. New Zealand in the ten-year interval 1911-21 showed an increase of 19·8 p.c. and in the decade 1921-31, 19·3 p.c. A census of Australia was not taken in 1931, but the official estimate of population based on that taken in 1933 gave an increase of 19·8 p.c. as against 22·0 p.c. for the period 1911-21. Census figures for the United States showed an increase in population of 14·9 p.c. for 1910-20, 16·1 p.c. for 1920-30 and 7·2 p.c. for 1930-40.

The eighth census of Canada taken June 2, 1941, gave the population as 11,506,655 as compared with 10,376,786 as of June 1, 1931, an increase of 1,129,869 or 10·9 p.c. in the decade. During the greater part of this decade, Canada, along with all other countries, was faced with a prolonged and severe economic depression; immigration was still further restricted by government regulations as well as by economic necessity. The figures for immigrant arrivals were actually reduced from 1,166,004 in the ten-year period 1921-31 to 140,361 in 1931-41. The natural

increase for this period showed a reduction of about 11 p.c. and, since immigration was reduced more than 88 p.c. over the decade, the net increase in population was due almost entirely to the favourable birth and death rates of the established population.

**Population Statistics for Newfoundland.**—On Mar. 31, 1949, the union of Newfoundland with Canada (see Chapter III) became effective. The latest Newfoundland census was taken in 1945 and it will not be possible to present population statistics on a really comparable basis with the other Canadian provinces until the Census of 1951 is taken. However, since there will naturally be keen interest in background information concerning the population of Newfoundland before union, a number of key tables based on previous Newfoundland censuses are given in Section 14 of Part II, pp. 171-175: in principle this presentation follows the Year Book treatment of quinquennial census data which are not presented with decennial census figures in the standard tables except in the cases of the populations of individual urban centres (see Tables 3 and 5 of Part I).

## PART I.—STATISTICS OF GENERAL POPULATION

### Section 1.—Growth of the Population

Since the creation of the Dominion of Canada in 1867, decennial censuses have been taken as of Apr. 2, 1871, Apr. 4, 1881, Apr. 5, 1891, Apr. 1, 1901, June 1, 1911, 1921, 1931 and June 2, 1941. Summary figures are given in Table 1.

#### 1.—Population of Canada, by Provinces and Territories, Decennial Census Years 1871-1941

NOTE.—The populations of the Prairie Provinces in 1906, 1916, 1926, 1936 and 1946 are shown at p. 165. Inter-censal estimated populations from 1867-1904 will be found at p. 141 of the 1936 Year Book; from 1905-30 at p. 127 of the 1946 edition; and from 1931-49 in Table 7, p. 155, of the present edition.

Province or Territory	1871	1881	1891	1901	1911	1921	1931	1941
P. E. Island.....	94,021	108,891	109,078	103,259	93,728	88,615	88,038	95,047
Nova Scotia.....	387,800	440,572	450,396	459,574	492,338	523,837	512,846	577,962
New Brunswick....	285,594	321,233	321,263	331,120	351,889	387,876	408,219	457,401
Quebec.....	1,191,516	1,359,027	1,488,535	1,648,898	2,005,776 <sup>1</sup>	2,360,510 <sup>2</sup>	2,874,662	3,381,882
Ontario.....	1,620,851	1,926,922	2,114,321	2,182,947	2,527,292 <sup>1</sup>	2,933,662	3,431,683	3,787,655
Manitoba.....	25,228	62,260	152,506	255,211	461,394 <sup>1</sup>	610,118	700,139	729,744
Saskatchewan.....	...	...	...	91,279	492,432	757,510	921,785	895,992
Alberta.....	...	...	...	73,022	374,295 <sup>3</sup>	588,454	731,605	796,169
British Columbia..	36,247	49,459	98,173	178,657	392,480	524,582	694,263	817,861
Yukon.....	...	...	...	27,219	8,512	4,157	4,230	4,914
N.W.T. <sup>4</sup> .....	48,000	56,446	98,967	20,129	6,507 <sup>2</sup>	8,143	9,316	12,028
<b>Canada.....</b>	<b>3,689,257</b>	<b>4,324,810</b>	<b>4,833,239</b>	<b>5,371,315</b>	<b>7,206,643</b>	<b>8,787,949<sup>2</sup></b>	<b>10,376,786</b>	<b>11,506,655</b>

<sup>1</sup> Corrected as a result of the Boundaries Extension Acts, 1912. <sup>2</sup> Revised in accordance with the Labrador Award of the Privy Council, Mar. 1, 1927. The total for 1921 includes 485 members of the Royal Canadian Navy who were recorded separately. <sup>3</sup> Corrected by transfer of population of Fort Smith (368) to the Northwest Territories. <sup>4</sup> The decreases shown in the population of the Northwest Territories since 1891 are due to the separation therefrom of vast areas to form Alberta, Saskatchewan and Yukon and to extend the boundaries of Quebec, Ontario and Manitoba.

The land area and density of the population per square mile is given by provinces in Table 2 for the census years 1911-41. Similar information by counties or census divisions for the Census of 1941 is given at pp. 109-112 of the 1947 Year Book.

## 2.—Land Area and Density of Population, by Provinces and Territories, Census Years 1911-41

Province or Territory	Land Area in Sq. Miles	Population, 1911 <sup>1</sup>		Population, 1921		Population, 1931		Population, 1941	
		Total	Per Sq. Mile	Total	Per Sq. Mile	Total	Per Sq. Mile	Total	Per Sq. Mile
Prince Edward Island...	2,184	93,728	42.92	88,615	40.57	88,038	40.31	95,047	43.52
Nova Scotia.....	20,743	492,338	23.74	523,837	25.25	512,846	24.72	577,962	27.86
New Brunswick.....	27,473	351,889	12.81	387,876	14.12	408,219	14.86	457,401	16.65
Quebec.....	523,860	2,005,776	3.83	2,360,510 <sup>2</sup>	4.51	2,874,662	5.49	3,331,882	6.36
Ontario.....	363,282	2,527,292	6.96	2,933,662	8.08	3,431,683	9.45	3,787,655	10.43
Manitoba.....	219,723	461,394	2.10	610,118	2.78	700,139	3.19	729,744	3.32
Saskatchewan.....	237,975	492,432	2.07	757,510	3.18	921,785	3.87	895,992	3.77
Alberta.....	248,800	374,295	1.50	588,454	2.37	731,605	2.94	796,169	3.20
British Columbia.....	359,279	392,480	1.09	524,582	1.46	694,263	1.93	817,861	2.28
<b>Canada (Exclusive of the Territories).....</b>	<b>2,003,319</b>	<b>7,191,624</b>	<b>3.59</b>	<b>8,775,164<sup>2</sup></b>	<b>4.38</b>	<b>10,363,240</b>	<b>5.17</b>	<b>11,489,713</b>	<b>5.74</b>
Yukon.....	205,346	8,512	0.04	4,157	0.02	4,230	0.02	4,914	0.02
Northwest Territories..	1,253,438	6,507	0.01	8,143	0.01	9,316	0.01	12,028	0.01
<b>Canada.....</b>	<b>3,462,103</b>	<b>7,206,643</b>	<b>2.08</b>	<b>8,787,949<sup>2</sup></b>	<b>2.54</b>	<b>10,376,786</b>	<b>3.00</b>	<b>11,506,655</b>	<b>3.32</b>

<sup>1</sup> The populations of Ontario, Quebec, Manitoba and the Northwest Territories were adjusted for 1911 according to the provisions of the Boundaries Extension Acts, 1912. <sup>2</sup> Revised in accordance with the Labrador Award of the Privy Council, Mar. 1, 1927. The total for 1921 includes 485 members of the Royal Canadian Navy who were recorded separately.

The growth of Canadian cities with populations of over 30,000 in 1941, together with years of incorporation as cities, is shown in Table 3. All urban centres having populations of 1,000 to 30,000 in 1941 are listed in Table 5.

## 3.—Cities With Populations of Over 30,000 at the Latest Census Compared with Census Years 1871 and 1891-1931

NOTE.—Cities in which a Board of Trade exists are indicated by an asterisk (\*), and those in which there is a Chamber of Commerce by a dagger (†). In all cases the populations for previous censuses have been adjusted to cover the same area as the 1941 Census. Figures for 1881 are given at p. 144 of the 1948-49 Year Book.

City and Province	Year of Incorporation as City	Populations							
		1871	1891	1901	1911	1921	1931	1941	1946 <sup>1</sup>
		No.	No.	No.	No.	No.	No.	No.	No.
*†Montreal, Que.....	1832	129,822	254,278	325,653	490,504	618,506	818,577	903,007	...
*Toronto, Ont.....	1834	59,000	181,215	218,504	381,833	521,893	631,207	667,457	...
*Vancouver, B.C.....	1886	..	13,709	29,432	120,847	163,220	246,593	275,353	...
*Winnipeg, Man.....	1873	241	25,639	42,340	136,035	179,087	218,785	221,960	229,045
†Hamilton, Ont.....	1846	26,880	48,959	52,634	81,969	114,151	155,547	166,337	...
*Ottawa, Ont.....	1854	24,141	44,154	64,226	87,062	107,843	126,872	154,951	...
*Quebec, Que.....	1832	59,699	63,090	68,840	78,118	95,193	130,594	150,757	...
†Windsor, Ont.....	1892	5,413	12,607	15,198	23,433	55,935	98,179	105,311	...
†Edmonton, Alta.....	1904	..	..	4,176	31,064	58,821	79,197	93,817	113,116
*Calgary, Alta.....	1893	..	3,876	4,392	43,704	63,305	83,761	88,904	100,044
†London, Ont.....	1855	18,000	31,977	37,976	46,300	60,959	71,148	78,264	...
*Halifax, N.S.....	1841	29,582	38,437	40,832	46,619	58,372	59,275	70,488	...
†Verdun, Que.....	1912	..	296	1,898	11,629	25,001	60,745	67,349	...
*Regina, Sask.....	1903	..	..	2,249	30,213	34,432	53,209	58,245	60,246
*Saint John, N.B.....	1785	41,325	39,179	40,711	42,511	47,166	47,514	51,741	...
*†St. John's, Nfld.....	1921	..	..	29,594	32,292	36,444	39,886 <sup>2</sup>	44,603 <sup>2</sup>	...
*†Victoria, B.C.....	1862	3,270	16,841	20,919	31,660	38,727	39,082	44,068	...
*Saskatoon, Sask.....	1906	..	..	113	12,004	25,739	43,291	48,027	46,028
†Three Rivers, Que.....	1857	7,570	8,334	9,981	13,691	22,367	35,450	42,007	...
†Sherbrooke, Que.....	1875	4,432	10,097	11,765	16,405	23,515	28,933	35,965	...
*Kitchener, Ont.....	1912	2,743	7,425	9,747	15,196	21,763	30,793	35,657	...
†Hull, Que.....	1875	3,800	11,264	13,993	18,222	24,117	29,433	32,947	...
*Sudbury, Ont.....	1930	..	..	2,027	4,150	8,621	18,518	32,203	...
*Brantford, Ont.....	1877	8,107	12,753	16,619	23,132	29,440	30,107	31,948	...
†Outremont, Que.....	1915	..	795	1,148	4,820	13,249	28,641	30,751	...
†Port William, Ont.....	1907	..	2,176	3,633	16,499	20,541	26,277	30,585	...
*St. Catharines, Ont.....	1876	7,864	9,170	9,946	12,484	19,881	24,753	30,275	...
†Kingston, Ont.....	1846	12,407	19,263	17,961	18,874	21,753	23,439	30,126	...

<sup>1</sup> The 1946 Quinquennial Census figures cover urban centres of the Prairie Provinces only. <sup>2</sup> Census of Newfoundland for 1935. <sup>3</sup> Census of Newfoundland for 1945. Includes all persons living within the incorporated limits of the city.



All the larger cities have in their neighbourhoods growing 'satellite' towns or other densely settled areas in close economic relationship with the central municipality. It has been advisable therefore, to calculate the total populations for the metropolitan areas of these greater cities: they are shown for 1931 and 1941 in Table 4.

#### 4.—Population of Greater Cities, 1931 and 1941

Greater City	1931	1941	Greater City	1931	1941
	No.	No.		No.	No.
Montreal.....	1,023,158	1,139,921	Hamilton.....	163,710	176,110
Toronto.....	810,467	900,491	Windsor.....	110,385	121,112
Vancouver.....	308,340	351,491	Halifax.....	74,161	91,829
Winnipeg.....	284,295	290,540	London.....	1	86,740
Ottawa.....	175,988	215,022	Victoria.....	1	75,218
Quebec.....	172,517	200,814	Saint John.....	58,717	65,784

<sup>1</sup> Not included in Greater Cities in 1931.

#### 5.—Urban Centres Having Populations of 1,000 to 30,000, by Provinces, at the Latest Census Compared with the Previous Census

NOTE.—Figures for the Censuses of 1901, 1911 and 1921 are given at pp. 145-149 of the 1948-49 Year Book.

Province and Urban Centre	1935	1945	Province and Urban Centre	1931	1941	Province and Urban Centre	1931	1941
	No.	No.		No.	No.		No.	No.
<b>Newfoundland—</b>			<b>Nova Scotia—conc.</b>			<b>New Brunswick—</b>		
Corner Brook.....	6,374	8,711	Springhill.....	6,355	7,170	concluded		
Bell Island.....	6,157	8,171	North Sydney.....	6,139	6,836	Shediac.....	1,883	2,147
Grand Falls.....	4,244	4,552	Stellarton.....	5,002	5,351	Milltown.....	1,735	1,876
Carbonear.....	3,367	3,472	Westville.....	3,946	4,115	Grand Falls.....	1,556	1,806
Windsor.....	1,447	2,772	Kentville.....	3,033	3,928	Marysville.....	1,512	1,651
Botwood.....	1,090	2,744	Bridgewater.....	3,262	3,445	Sunny Brae.....	...	1,368
Bishop's Falls.....	1,882	2,522	Windsor.....	3,032	3,436	St. George.....	1,087	1,169
Grand Bank.....	2,209	2,329	Dominion.....	2,846	3,279	St. Andrews.....	1,207	1,167
Harbour Grace.....	2,215	2,065	Liverpool.....	2,669	3,170	St. Leonard.....	...	1,095
Deer Lake.....	1,227	1,927	Pictou.....	3,152	3,069			
Humbermouth.....	1,248	1,914	Inverness.....	2,900	2,975			
Torbay.....	1,523	1,422	Lunenburg.....	2,727	2,856	<b>Quebec—</b>		
Bonavista.....	4,022	1,401	Trenton.....	2,613	2,699	Westmount.....	24,235	26,047
Buchans.....	1,104	1,395	Antigonish.....	1,764	2,157	Shawinigan Falls.....	15,345	20,325
Bay Roberts.....	1,911	1,301	Parsonsboro.....	1,919	1,971	Lachine.....	18,630	20,051
Channel.....	1,212	1,297	Wolfville.....	1,818	1,944	St. Hyacinthe.....	13,448	17,798
Curling.....	981	1,264	Digby.....	1,412	1,657	Valleyfield (Sala-		
Great St. Lawrence.	832	1,251	Shelburne.....	1,474	1,605	berry de).....	11,411	17,052
Spaniard's Bay.....	1,221	1,239	Canso.....	1,575	1,418	Chicoutimi.....	11,877	16,040
Fogo.....	1,164	1,176	Wedgeport.....	1,294	1,327	Granby.....	10,587	14,197
Blackhead Road.....	727	1,116	Oxford.....	1,133	1,297	Jonquière.....	9,448	13,769
Victoria.....	1,004	1,099	Middleton.....	904	1,172	St. Jean.....	11,256	13,646
Pouch Cove.....	1,095	1,088	Joggins.....	1,000	1,109	Joliette.....	10,765	12,749
Upper Island Cove..	942	1,080	Lockeport.....	973	1,084	Thetford Mines.....	10,701	12,716
Norris Arm.....	729	1,022	Mulgrave.....	975	1,057	Sorel.....	10,320	12,251
			Port Hawkesbury..	1,011	1,031	Lévis.....	11,724	11,991
			Malone Bay.....	1,065	1,025	Cap de la Madeleine.	8,748	11,961
			Bridgetown.....	1,126	1,020	St. Jérôme.....	8,967	11,329
			Louisburg.....	971	1,012	Drummondville.....	6,609	10,555
<b>P. E. Island—</b>			<b>New Brunswick—</b>			Magog.....	6,302	9,034
Charlottetown.....	12,361	14,821	Moncton.....	20,689	22,763	Rouyn.....	3,225	8,808
Summerside.....	3,759	5,034	Fredericton.....	8,830	10,062	Rivière-du-Loup.....	8,499	8,713
Souris.....	1,063	1,114	Edmundston.....	6,430	7,096	Grand Mère.....	6,461	8,608
<b>Nova Scotia—</b>			Campbellton.....	6,505	6,748	Victoriaville.....	6,213	8,516
Sydney.....	23,089	28,305	Dalhousie.....	3,974	4,508	La Tuque.....	7,871	7,919
Glace Bay.....	20,706	25,147	Chatham.....	4,017	4,082	Lauzon.....	7,084	7,877
Dartmouth.....	9,100	10,847	Newcastle.....	3,383	3,781	Longueuil.....	5,407	7,087
Truro.....	7,901	10,272	Woodstock.....	3,259	3,593	Rimouski.....	5,589	7,009
New Waterford.....	7,745	9,302	Bathurst.....	3,300	3,554	Kenogami.....	4,500	6,799
New Glasgow.....	8,858	9,210	St. Stephen.....	3,437	3,366	St. Joseph d'Alma..	3,970	6,449
Amherst.....	7,450	8,620	Sussex.....	2,252	3,027	St. Lambert.....	6,075	6,417
Sydney Mines.....	7,769	8,108	Sackville.....	2,234	2,489	St. Laurent.....	5,348	6,242
Yarmouth.....	7,055	7,790	Devon.....	1,977	2,337	Montreal North.....	4,519	6,152
						Asbestos.....	4,396	5,711



5.—Urban Centres Having Populations of 1,000 to 30,000, by Provinces, at the Latest Census Compared with the Previous Census—continued

Province and Urban Centre	1931	1941	Province and Urban Centre	1931	1941	Province and Urban Centre	1931	1941
No.	No.	No.	No.	No.	No.	No.	No.	
<b>Quebec—continued</b>			<b>Quebec—continued</b>			<b>Quebec—concluded</b>		
St. Joseph de Grant-ham.....	2,812	5,556	Timiskaming.....	1,855	2,168	L'Enfant Jésus.....	1,066	1,175
Montmorency.....	4,575	5,393	La Sarre.....	2,167		Charlemagne.....	813	1,150
Lachute.....	3,906	5,310	St. Raymond.....	1,772	2,157	Princeville.....	980	1,145
Giffard.....	3,573	4,909	Lennoxville.....	1,927	2,150	St. Félix-de-Valois..	896	1,130
Mount Royal.....	2,174	4,888	St. Marc-des- Carrières.....	1,997	2,118	Sutton.....	967	1,118
St. Thérèse.....	3,292	4,659	Saindon.....	2,355	2,115	Bic.....	1,020	1,117
Lasalle.....	2,362	4,651	Dorval.....	2,052	2,048	McMasterville.....	819	1,097
Matane.....	4,757	4,633	Cabano.....	2,187	2,031	Pointe-au-Pic.....	961	1,083
Montmagny.....	3,927	4,585	Courville.....	1,678	2,011	St. Joseph-de-la- Rivière Bleue.....	1,111	1,082
Arvida.....	1,790	4,581	Belœil.....	1,434	2,008	Deschailons-sur-St. Laurent.....		1,078
Noranda.....	2,246	4,576	Hampstead.....	594	1,974	Fort Coulonge.....	1,130	1,072
Mégantic.....	3,911	4,560	Huntingdon.....	1,619	1,952	St. Jovite.....	981	1,059
Pointe Claire.....	4,058	4,536	St. Georges E. (Beauce).....	1,543	1,945	Boucherville.....	883	1,047
Buckingham.....	4,638	4,516	L'Epiphanie.....	1,705	1,941	Nouveau-Salaberry..	805	1,043
Coaticook.....	4,044	4,414	La Providence.....	1,241	1,924	Contrecoeur.....	794	1,043
Val d'Or.....	4,385		St. Joseph (Beauce). Arthabaska.....	1,625	1,892	Chambord.....		1,029
Pointe-aux-Trembles	2,970	4,314	Pont Rouge.....	1,353	1,865	Normandin.....	773	1,029
St. Pierre.....	4,185	4,061	Chandler.....	1,741	1,858	Notre-Dame- d'Hébertville.....	933	1,025
Farnham.....	4,205	4,055	L'Assomption.....	1,576	1,829	Beebe Plain.....	1,053	1,024
Nicolet.....	2,868	3,751	Greenfield Park.....	1,610	1,819	Papineauville.....	954	1,023
Beauport.....	3,242	3,725	St. Anne-de- Beaupré.....	1,901	1,783	St. Joseph (St. Hyacinthe).....	783	1,021
Quebec W.....	1,813	3,619	L'Abord-à-Plouffe..	1,227	1,773	St. Emilien.....	646	1,018
Beauharnois.....	3,729	3,550	St. Marie.....	1,598	1,736	Notre-Dame-de- Portneuf.....		1,015
Louiseville.....	2,365	3,542	Lac-au-Saumon.....	1,779	1,703	La Pérade.....	926	1,014
Mont Joli.....	3,143	3,533	Bedford.....	1,570	1,697	St. Pie.....	858	1,009
Plessisville.....	2,536	3,522	Bromptonville.....	1,527	1,672	Ville-Marie.....	1,049	1,001
East Angus.....	3,566	3,501	Bernierville.....	946	1,638			
Baie St. Paul.....	2,916	3,500	St. Jacques.....	1,529	1,634			
Cowansville.....	1,859	3,486	St. Gabriel-de- Brandon.....	1,530	1,632	<b>Ontario—</b>		
Montreal W.....	3,190	3,474	St. Félicien.....	1,599	1,603	Timmins.....	14,200	28,790
Iberville.....	2,778	3,454	St. Benoit Joseph Labre.....	1,648	1,593	Oshawa.....	23,439	26,813
Windsor.....	2,720	3,368	St. Eustache.....	1,187	1,564	Sault Ste. Marie.....	23,082	25,794
St. Agathe-des- Monts.....	2,949	3,308	Rivière-du-Moulin..	1,040	1,561	Peterborough.....	22,327	25,350
Bagotville.....	2,468	3,248	Baie Comeau.....	1,548		Port Arthur.....	19,818	24,426
Port Alfred.....	2,342	3,243	Bourlamaque.....	1,545		Guelph.....	21,075	23,273
Laval-des-Rapides..	2,716	3,242	Causapscal.....	1,390	1,545	Niagara Falls.....	19,046	20,589
Roberval.....	2,770	3,220	St. Anne-de- Chicoutimi.....	1,102	1,540	Sarnia.....	18,191	18,734
Riverview.....	2,192	3,173	Warwick.....	987	1,504	Chatham.....	14,569	17,369
Waterloo.....	2,835	3,115	St. Eustache-sur-le- Lac.....	215	1,472	St. Thomas.....	15,430	17,132
Aylmer.....	2,835	3,105	St. Jérôme.....	1,235	1,469	Stratford.....	17,742	17,038
Brownsburg.....	2,596	3,082	Montreal S.....	1,264	1,441	Belleville.....	13,790	15,710
Richmond.....	2,631	3,064	St. Rémi.....	1,201	1,431	North Bay.....	15,528	15,599
Donnacona.....	2,417	3,006	Châteauguay.....	1,067	1,425	Galt.....	14,006	15,346
St. Anne de Belle- vue.....	1,528	2,956	Chambly Bassin.....	1,287	1,423	Cornwall.....	11,126	14,117
St. Michel.....	2,774	2,936	Rock Island.....	1,424	1,395	Owen Sound.....	12,839	14,002
Laprairie.....	2,774	2,936	Duparquet.....	1,384	1,384	Welland.....	10,709	12,500
Malartic.....	2,153	2,895	Laurentides.....	1,284	1,342	Woodstock.....	11,146	12,461
Amos.....	2,153	2,862	Disraeli.....	1,437	1,358	Forest Hill.....	5,207	11,757
Dolbeau.....	2,823	2,847	Danville.....	1,354	1,332	Prombroke.....	9,736	11,342
Charney.....	2,823	2,831	Cap Chat.....	1,139	1,329	Brockville.....	9,368	11,150
Gatineau.....	1,869	2,822	St. Casimir.....	1,316	1,307	Pembroke.....	8,183	9,798
Charlesbourg.....	2,394	2,819	Pierreville.....	1,352	1,302	Orillia.....	7,776	9,725
Mont Laurier.....	2,431	2,834	Thurso.....	1,292	1,295	Barrie.....	7,146	9,504
Berthier.....	2,251	2,864	Mistassini.....	970	1,294	New Toronto.....	8,095	9,025
Loretteville.....	1,986	2,894	Dorion.....	1,155	1,292	Waterloo.....	7,505	8,403
Marieville.....	1,969	2,855	Scotstown.....	1,189	1,273	Lindsay.....	6,276	8,323
Acton Vale.....	1,753	2,865	Montebello.....	1,501	1,266	Trenton.....	6,800	8,070
Montreal E.....	2,242	2,855	St. Pascal.....	1,316	1,255	Mimico.....	6,886	7,966
La Malbaie.....	2,408	2,824	Baie-de-Shawinigan.	1,235	1,254	Eastview.....	6,766	7,745
Pricerville.....	2,310	2,821	St. Paolme.....	975	1,251	Kenora.....	7,108	7,159
Maniwaki.....	1,720	2,820	Beauceville E.....	1,066	1,236	Smiths Falls.....	6,503	6,993
St. Rose.....	1,661	2,292	Rawdon.....	2,015	1,226	Port Colborne.....	5,031	6,988
Almaville.....	2,010	2,282	Masson.....	1,099	1,222	Swansea.....	6,920	6,800
Black Lake.....	2,167	2,276	Rigaud.....	1,051	1,209	Midland.....	6,280	6,704
St. Alexis-de-la- Grande Baie.....	1,790	2,230	St. Césaire.....	955	1,185	Preston.....	5,904	6,595
Pointe-à-Gatineau..	2,282	2,230	Chambly Canton.....			Fort Erie.....	5,809	6,270
Terrebonne.....	1,955	2,209				Collingwood.....	5,177	6,263
St. Joseph (Riche- lieu).....	1,869	2,207				Hawkesbury.....	938	6,183
Trois Pistoles.....	1,837	2,176				Leaside.....	5,226	6,037
						Simcoe.....	5,532	6,020
						Brampton.....		

5.—Urban Centres Having Populations of 1,000 to 30,000, by Provinces, at the Latest Census Compared with the Previous Census—continued

Province and Urban Centre	1931	1941	Province and Urban Centre	1931	1941	Province and Urban Centre	1931	1941
No.	No.	No.	No.	No.	No.	No.	No.	
<b>Ontario—continued</b>			<b>Ontario—continued</b>			<b>Ontario—concluded</b>		
Cobourg.....	5,834	5,973	Wingham.....	1,959	2,030	Tavistock.....	1,029	1,066
Whitby.....	5,046	5,904	Elmira.....	2,170	2,012	Sutton.....	788	1,051
Fort Frances.....	5,470	5,897	Mattawa.....	1,631	1,971	Winchester.....	1,027	1,049
Leamington.....	4,902	5,858	Port Dover.....	1,707	1,968	Woodbridge.....	812	1,044
Ingersoll.....	5,233	5,782	Milton.....	1,839	1,964	Wellington.....	966	1,036
Parry Sound.....	3,512	5,765	Blenheim.....	1,737	1,952	Bradford.....	972	1,033
Weston.....	4,723	5,740	Ridgetown.....	1,952	1,944	Victoria Harbour.....	1,128	1,026
Renfrew.....	5,296	5,511	Essex.....	1,954	1,935	Casselman.....	995	1,021
Thorold.....	5,092	5,305	Clinton.....	1,789	1,896	Milverton.....	983	1,015
Dundas.....	5,026	5,276	Mount Forest.....	1,801	1,892	Stoney Creek.....	877	1,007
Long Branch.....	3,962	5,172	Mitchell.....	1,588	1,777	Shelburne.....	1,077	1,005
Port Hope.....	4,723	5,055	Sioux Lookout.....	2,088	1,756	Cache Bay.....	1,151	1,004
Wallaceburg.....	4,326	4,986	Wiaraton.....	1,949	1,749	Bobcaygeon.....	991	1,002
Riverside.....	4,432	4,878	Alliston.....	1,355	1,733	Fonthill.....	863	1,000
Paris.....	4,137	4,637	Port Dalhousie.....	1,547	1,723			
Sturgeon Falls.....	4,234	4,576	Chesley.....	1,699	1,701			
Goderich.....	4,491	4,557	Durham.....	1,699	1,701			
Penetanguishene.....	4,035	4,521	Seaford.....	1,686	1,668			
Perth.....	4,099	4,458	Dresden.....	1,529	1,662	<b>Manitoba—</b>		
Carleton Place.....	4,105	4,305	Brighton.....	1,580	1,651	St. Boniface.....	18,157	21,613
Oakville.....	3,857	4,115	Cardinal.....	1,319	1,645	Brandon.....	17,383	17,551
Bowmanville.....	4,080	4,113	Cape Breton.....	1,684	1,641	Portage la Prairie.....	7,187	7,620
Gananoque.....	3,592	4,044	Dryden.....	1,326	1,641	Flin Flon <sup>1</sup> .....		7,595
Dunnville.....	3,405	4,028	Southampton.....	1,489	1,600	Transcona.....	5,495	6,132
Newmarket.....	3,748	4,026	Exeter.....	1,666	1,589	Selkirk.....	4,915	5,408
Tillsonburg.....	3,385	4,002	Morrisburg.....	1,420	1,575	Dauphin.....	4,662	4,637
Pictou.....	3,580	3,901	Forest.....	1,480	1,570	The Pas.....	3,181	3,102
Arnprior.....	4,023	3,895	Niagara.....	1,228	1,541	Brooklands.....	2,240	2,728
Burlington.....	3,046	3,815	Keewatin.....	1,422	1,481	Neepawa.....	2,292	2,468
Copper Cliff.....	3,173	3,732	Rockcliffe Park.....	951	1,480	Minnedosa.....	1,636	1,837
St. Marys.....	3,802	3,635	Larder Lake.....		1,464	Morden.....	1,427	1,690
Kapuskasing.....	3,819	3,431	Hagersville.....	1,385	1,455	Virdee.....	1,619	1,597
Napanee.....	3,497	3,405	Vankleek Hill.....	1,350	1,435	Carman.....	1,455	1,555
Hanover.....	3,077	3,290	Palmerston.....	1,543	1,418	Souris.....	1,346	1,517
Prescott.....	2,984	3,223	Uxbridge.....	1,325	1,406	Beauséjour.....	1,161	1,181
Portsmouth.....	2,741	3,135	New Hamburg.....	1,436	1,402	Swan River.....	1,129	1,175
Hespeler.....	2,752	3,058	Caledonia.....	1,396	1,401	Winkler.....	957	1,164
New Liskeard.....	2,880	3,019	Port Elgin.....	1,305	1,395	Killarney.....	1,051	1,091
Campbellford.....	2,744	3,018	Chippawa.....	1,266	1,385	Stonewall.....	1,020	1,071
Strathroy.....	2,964	3,016	Point Edward.....	1,362	1,363	Altona.....		1,065
Listowel.....	2,676	3,013	Lakefield.....	1,332	1,349	Gimli.....	853	1,045
Merriton.....	2,523	2,993	Richmond Hill.....	1,295	1,345	<b>Saskatchewan—</b>		
Geraldton.....		2,979	Tweed.....	1,271	1,343	Moose Jaw.....	20,753	23,069
Humberside.....	2,490	2,963	Waterford.....	1,213	1,342	Prince Albert.....	12,508	14,532
Amherstburg.....	2,759	2,853	Thessalon.....	1,632	1,316	Weyburn.....	6,179	7,003
Cochrane.....	3,963	2,844	Beamsville.....	1,203	1,309	Swift Current.....	5,594	6,379
Fergus.....	2,594	2,832	Harrison.....	1,296	1,305	North Battleford.....	4,745	5,717
Petrolia.....	2,596	2,801	Iroquois Falls.....	1,476	1,302	Yorkton.....	5,577	5,714
Huntsville.....	2,817	2,800	Norwich.....	1,158	1,268	Melville.....	4,011	3,824
Aurora.....	2,587	2,726	Englehart.....	1,210	1,262	Estevan.....	2,774	3,120
Orangeville.....	2,614	2,718	Deseronto.....	1,476	1,261	Melfort.....	2,005	2,305
Walkerton.....	2,431	2,679	Souvilleville.....	1,155	1,253	Nipawin.....	1,344	2,211
Meaford.....	2,624	2,662	Elora.....	1,195	1,247	Biggar.....	1,930	1,799
Blind River.....	2,805	2,619	Port Perry.....	1,163	1,245	Humboldt.....	1,767	1,798
Georgetown.....	2,288	2,562	Kemptville.....	1,286	1,232	Kamsack.....	1,792	1,754
Almonte.....	2,415	2,543	Rainy River.....	1,402	1,205	Shaunavon.....	1,603	1,643
Kincardine.....	2,465	2,507	Markham.....	1,008	1,204	Assiniboia.....	1,349	1,585
Aylmer.....	2,283	2,478	Barry's Bay.....		1,198	Rosetown.....	1,470	1,563
Tecumseh.....	2,129	2,412	Madoc.....	1,059	1,188	Tisdale.....	1,237	1,469
Cobalt.....	3,885	2,376	Port Stanley.....	816	1,177	Meadow Lake.....	971	1,456
Bracebridge.....	2,436	2,341	Harrow.....	989	1,166	Wilkie.....	1,232	1,425
Grimsby.....	2,198	2,331	Fenelon Falls.....	963	1,158	Indian Head.....	1,349	1,354
Kingsville.....	2,174	2,317	Frankford.....	852	1,144	Battleford.....	1,317	1,336
Haileybury.....	2,813	2,268	L'Orignal.....	1,121	1,118	Maple Creek.....	1,085	1,280
Coniston.....		2,245	Havelock.....	1,173	1,113	Kindersley.....	990	1,235
Alexandria.....	2,006	2,175	Marmora.....	996	1,106	Rosthern.....	1,149	1,218
Port Credit.....	1,635	2,160	Bancroft.....	911	1,094	Canora.....	1,200	1,205
Tilbury.....	1,992	2,155	Eganville.....	1,020	1,088	Lloydminster.....	1,624 <sup>2</sup>	1,833 <sup>2</sup>
Gravenhurst.....	1,864	2,122	Little Current.....	1,101	1,088	Moosomin.....	1,096	1,134
Acton.....	1,855	2,063	Stayner.....	1,019	1,085	Watrous.....	1,138	1,126
Delhi.....	1,121	2,062	Watford.....	979	1,076	Wynyard.....	1,080	1,084
Rockland.....	2,118	2,040	Chesterville.....	1,012	1,067	Gravelbourg.....	1,130	1,079
						Sutherland.....	888	1,046

<sup>1</sup> Flin Flon was not incorporated until June 18, 1946, that is, subsequent to the 1946 Census, June 2.

<sup>2</sup> Includes 572 in Alberta in 1941 and 693 in 1946.

Province and Urban Centre	1941	1946	Province and Urban Centre	1941	1946	Province and Urban Centre	1931	1941
	No.	No.		No.	No.		No.	No.
<b>Alberta—</b>			<b>Alberta—concluded</b>			<b>British Columbia—</b>		
Lethbridge.....	14, 571	16, 522	Claresholm.....	1, 265	1, 306	concluded		
Medicine Hat.....	10, 571	12, 859	Magrath.....	1, 207	1, 295	Nelson.....	5, 992	5, 912
Red Deer.....	2, 924	4, 042	Redcliff.....	1, 111	1, 239	Vernon.....	3, 937	5, 209
Camrose.....	2, 598	2, 967	Innisfail.....	1, 223	1, 272	Kelowna.....	4, 655	5, 118
Drumheller.....	2, 748	2, 659	Wainwright.....	980	1, 261	Port Alberni.....	2, 356	4, 584
Wetaskiwin.....	2, 318	2, 645	St. Paul.....	1, 018	1, 187	Chilliwack.....	2, 461	3, 657
Cardston.....	1, 864	2, 334	Beverly.....	981	1, 171	Rossland.....	2, 848	3, 675
Grande Prairie.....	1, 724	2, 267	Turner Valley.....	676	1, 157	Cranbrook.....	3, 067	2, 568
Raymond.....	2, 089	2, 116	Pincher Creek.....	994	1, 148	Fernie.....	2, 732	2, 545
Coleman.....	1, 870	1, 809	Brooks.....	888	1, 091	Duncan.....	1, 843	2, 189
Lacombe.....	1, 603	1, 808	Rocky Mountain House.....	800	1, 017	Revelstoke.....	2, 736	2, 026
Blairmore.....	1, 731	1, 767				Prince George.....	2, 479	2, 107
Taber.....	1, 331	1, 760				Mission.....	1, 314	1, 957
Hanna.....	1, 622	1, 756				Alberni.....	702	807
High River.....	1, 430	1, 674				Courtenay.....	1, 219	1, 737
Macleod.....	1, 912	1, 649				Ladysmith.....	1, 443	1, 706
Vermilion.....	1, 408	1, 630	<b>British Columbia—</b>	<b>No.</b>	<b>No.</b>	Port Coquitlam.....	1, 312	1, 539
Edson.....	1, 499	1, 571	New Westminster.....	17, 524	21, 967	Port Moody.....	1, 260	1, 512
Vegreville.....	1, 696	1, 563	Trail.....	7, 573	9, 392	Grand Forks.....	1, 298	1, 259
Olds.....	1, 337	1, 521	North Vancouver.....	8, 510	8, 914	Creston.....	695	1, 153
Settler.....	1, 295	1, 499	Prince Rupert.....	6, 350	6, 714			
Ponoka.....	1, 306	1, 468	Nanaimo.....	6, 745	6, 635	<b>Yukon—</b>		
Black Diamond.....	890	1, 380	Kamloops.....	6, 167	5, 959	Dawson.....	819	1, 043

The traditional movement of population on the North American Continent from east to west has not been apparent in Canadian statistics of the past two decades. Considerable variation is revealed by the intercensal comparison between 1931 and 1941, by the ration book counts of 1944 and 1946 and by the special survey of interprovincial migration covering 1946-47.

The most spectacular changes are shown in the Prairie Provinces and in British Columbia. The three Prairie Provinces lost by migration about 250,000 people between 1931 and 1941 and almost the same number from 1941 to 1946. British Columbia gained—during the 1930's at the rate of about 8,000 a year and during the 1940's at about 25,000 a year. According to the most recent figures available there is no sign of a falling-off in British Columbia's growth. On an absolute basis, Ontario received almost the same number of people as British Columbia; in relation to its larger population this growth was only one quarter as important. Quebec's net change was very small relative to its population. Nova Scotia gained during the war years and lost immediately after the War, while the Maritime Provinces as a whole lost population over the past two decades.

Province	June 1, 1931 to June 1, 1941	June 1, 1941 to Apr. 1, 1944	Apr. 1, 1944 to Sept. 1, 1946	June 1, 1946 to June 1, 1947	June 1, 1947 to June 1, 1948
	'000	'000	'000	'000	'000
Prince Edward Island.....	-3	-7	1	-2	-3
Nova Scotia.....	+8	+8	-18	-2	-1
New Brunswick.....	-10	-19	+3	-2	-1
Quebec.....	-3	-13	-10	+1	+1
Ontario.....	+78	+59	+79	+21	+41
Manitoba.....	-48	-25	-21	-2	+2
Saskatchewan.....	-158	-86	-38	+6	-6
Alberta.....	-42	-15	-42	+1	+6
British Columbia.....	+82	+89	+56	+26	+24
<b>Totals</b>	<b>-96</b>	<b>-9</b>	<b>+9</b>	<b>+39</b>	<b>+63</b>

<sup>1</sup> Less than 500.



### Section 3.—Intercensal Estimates of Population

Intercensal estimates of the population serve many uses. They constitute a base for vital statistics rates, per capita figures of production and trade, and other analyses. More recently, they have proved useful for estimates of labour force and other population characteristics on data collected in sample surveys.

Estimates are constructed in the first place for the total population of Canada and each province. It is a requirement that these be made available about the date to which they apply, June 1 of each year. As final figures on the components of population change are not ready at that date, the numbers of births, deaths and immigrants are partly filled in by extrapolation so that a preliminary figure is secured for the June to May interval. To avoid a cumulative error the calculation in effect starts afresh with the latest preceding census for each year's estimates and uses the most up-to-date figures then available. To the census figures are added the births of the intervening years and the deaths are subtracted. Immigrants are added and emigrants are subtracted. On the last item of this calculation there is least information; it is possible to ascertain the number of Canadians entering the United States from United States immigration figures, and sometimes the same for the United Kingdom but no data are available for other countries.

The program of population estimates calls for two figures to be given in respect of each year; one based on preliminary materials, as described above, necessarily involving an extrapolation of birth, death and immigration returns, and the other on final figures subject to no further change which can be made available only when the last item of subsequent information has been secured. This last item is the succeeding decennial census. There is no theoretical gain in making minor adjustments which are within the band of error to which the figures are subject in any case, and such adjustments in practice cause confusion to users. Since estimates for successive years are independently calculated back to the latest census the best estimate of the balance of population change is not obtained by subtracting the figure for one year from that for the year following. As there is much interest attaching to the year-to-year balance, the following statement, which gives all available data on that point, is included.

Year	Calendar-Year Data				Estimated Population as at June <sup>1</sup>
	Births	Deaths	Natural Increase	Immig- ration	
1941.....	255,224	114,500	140,724	9,325	11,490,000
1942.....	272,184	112,848	159,336	7,576	11,637,000 <sup>2</sup>
1943.....	283,423	118,531	164,892	8,502	11,795,000 <sup>2</sup>
1944.....	284,220	116,052	168,168	12,793	11,958,000 <sup>2</sup>
1945.....	288,730	113,414	175,316	22,711	12,102,000 <sup>2</sup>
1946.....	330,732	114,931	215,801	71,691	12,283,000 <sup>2</sup>
1947.....	359,094	117,725	241,369	64,127	12,582,000 <sup>2</sup>

<sup>1</sup> Exclusive of Yukon and the Northwest Territories.  
 ment as later data are made available.

<sup>2</sup> These estimates are subject to adjust-



## 7.—Estimates of Population, by Provinces, Intercensal Years 1931-49

NOTE.—At every census the previous post-censal data are adjusted to the newly recorded population figures. Figures for 1867-1904 will be found at p. 141 of the 1936 Year Book and for 1905-30 at p. 127 of the 1946 edition. Figures for all provinces for 1931 and 1941 are decennial census figures while those for the Prairie Provinces for 1936 and 1946 are quinquennial census figures.

Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N. W.T.	Canada
	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000
1931.....	..	88	513	408	2,874	3,432	700	922	732	634	4	9	10,376
1932.....	..	89	519	414	2,925	3,473	705	924	740	707	4	10	10,510
1933.....	..	90	525	410	2,972	3,512	708	926	750	717	4	10	10,633
1934.....	..	91	531	423	3,016	3,544	709	928	758	727	4	10	10,741
1935.....	..	92	536	428	3,057	3,575	710	930	765	736	5	11	10,845
1936.....	..	93	543	433	3,099	3,606	711	931	773	745	5	11	10,950
1937.....	..	93	549	437	3,141	3,637	715	922	776	759	5	11	11,045
1938.....	..	94	555	442	3,183	3,672	720	914	781	775	5	11	11,152
1939.....	..	94	561	447	3,230	3,708	726	906	786	792	5	12	11,267
1940.....	..	95	569	452	3,278	3,747	728	900	790	805	5	12	11,381
1941.....	..	95	578	457	3,332	3,788	730	896	796	818	5	12	11,507
1942.....	..	90	591	464	3,390	3,884	724	848	776	870	5	12	11,654
1943.....	..	91	607	463	3,457	3,917	726	842	792	900	5	12	11,812
1944.....	..	91	612	462	3,500	3,965	732	846	818	932	5	12	11,975
1945.....	2	92	621	468	3,561	4,004	736	845	826	949	5	12	12,119
1946 <sup>1</sup> .....	2	94	612	480	3,630	4,101	727	833	803	1,003	8	16	12,307
1947.....	2	94	621	491	3,712	4,189	743	842	822	1,044	8	16	12,582
1948 <sup>1</sup> .....	2	93	635	503	3,792	4,297	757	854	846	1,082	8	16	12,883
1949 <sup>1</sup> .....	348	94	645	516	3,887	4,411	778	861	871	1,114	8	16	13,549

<sup>1</sup> Subject to adjustment as later data are made available. <sup>2</sup> Estimates for Newfoundland prior to union with Canada, which took place on Mar. 31, 1949, are not included in Canada totals.

## PART II.—ANALYSES OF GENERAL POPULATION

## Section 1.—Rural and Urban Population

The population residing in cities, towns and incorporated villages has been defined for census purposes as 'urban' and that outside such localities as 'rural'. The distinction between rural and urban populations in Canada, therefore, is a distinction of provincial legal status rather than of size of aggregation of population within a limited area. Since the laws of the various provinces differ in regard to the population necessary before a municipality may be incorporated as urban,\* the line of demarcation between rural and urban population is not uniformly drawn throughout Canada.

This basis of comparing rural and urban populations adhered to throughout the census analyses is adopted for Canada because the necessary comparable data over a long period of years required for comparison by degree of urbanization does not exist. Obviously, the populations of villages of less than 1,000 cannot be regarded as truly urban, although there is reason, for certain purposes, to distinguish them from the surrounding rural populations, in that they enjoy definite cultural advantages not possessed by the strictly rural municipalities.

Table 2 has been prepared to overcome some of the difficulties involved, and to provide a basis for comparison of urban centres by size with those of other countries. These data enable places outside any required size limits to be readily excluded. Similar data, by provinces, will be found in Vol. II of the Census of 1941.

\* In Saskatchewan the original legislation of 1908 provided that a community of 50 persons on an area not greater than 640 acres might be incorporated. Several amendments have since been made and, as the Act now stands, 100 people resident on an area not greater than 240 acres may be incorporated. The Ontario law, on the other hand, requires that a village before it can be incorporated must have a population of 750 on an area not exceeding 500 acres.

During the latest four decades there has been a radical shifting in the distribution of the Canadian population from rural to urban districts. The change has been continuous throughout the period. In the decade ended 1941 the proportion of urban population increased from 53.7 p.c. to 54.3 p.c. Urban communities absorbed over 60 p.c. of the total increase in population during that decade and the urban population of Canada in 1941 exceeded the rural by 998,177. Out of every 1,000 persons in the country, 457 were resident in rural and 543 in urban communities on June 2, 1941, as compared with 463 in rural and 537 in urban communities on June 1, 1931; 505 in rural and 495 in urban on June 1, 1921; and 546 in rural and 454 in urban on June 1, 1911. In this trend to urbanization of population, Canada is by no means unique. The same change has characterized virtually all western nations to a greater or less degree during the past century.

### 1.—Rural and Urban Populations, by Provinces and Territories, Census Years 1911-41

Province or Territory	1911		1921		1931		1941	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
P. E. Island.....	78,758	14,970	69,522	19,093	67,653	20,385	70,707	24,340
Nova Scotia.....	306,210	186,128	296,799	227,038	281,102	231,654	310,422	267,540
New Brunswick....	252,342	99,547	263,432	124,444	279,279	128,940	313,978	143,423
Quebec.....	1,038,934	966,842	1,037,941	1,322,569	1,061,056	1,813,606	1,222,198	2,109,684
Ontario.....	1,198,803	1,328,489	1,227,030	1,706,632	1,335,691	2,095,092	1,449,022	2,338,633
Manitoba.....	261,029	200,365	348,502	261,616	384,170	315,069	407,871	321,873
Saskatchewan.....	361,037	131,395	538,552	218,958	630,880	290,905	600,846	295,146
Alberta.....	236,633	137,662	365,550	222,904	453,097	278,508	489,583	306,586
British Columbia..	188,796	203,684	277,020	247,562	299,524	394,739	374,467	443,394
Yukon.....	4,647	3,865	2,851	1,306	2,870	1,360	3,117	1,797
N.W.T.....	6,507	—	8,143	—	9,316	—	12,028	—
<b>Canada.....</b>	<b>3,933,696</b>	<b>3,272,947</b>	<b>4,435,827</b>	<b>4,352,122</b>	<b>4,804,728</b>	<b>5,572,058</b>	<b>5,254,239</b>	<b>6,252,416</b>

<sup>1</sup> Royal Canadian Navy (485) included in rural total.

Table 2 gives the distribution of urban population in Canada by size of urban centres; the rural-urban trend is very strongly indicated by the increased size of the larger cities and towns at a time when immigration, (especially that of British origin) which in former decades tended to concentrate there, was negligible.

### 2.—Urban Populations, by Size-of-Municipality Groups, Census Years 1921-41

Size of Municipality	1921			1931			1941		
	Number of Places	Popu- lation	P.C. of Total Pop.	Number of Places	Popu- lation	P.C. of Total Pop.	Number of Places	Popu- lation	P.C. of Total Pop.
Urban centres of—									
Over 500,000.....	2	1,140,399	12.98	2	1,449,784	13.97	2	1,570,464	13.65
Between—									
400,000 and 500,000	—	—	...	—	—	...	—	—	...
300,000 and 400,000	—	—	...	—	—	...	—	—	...
200,000 and 300,000	—	—	...	—	—	...	—	—	...
100,000 and 200,000	4	518,298	5.90	2	465,378	4.48	2	497,313	4.32
50,000 and 100,000	5	336,650	3.83	3	413,013	3.98	4	577,356	5.02
25,000 and 50,000	7	239,096	2.72	7	470,443	4.53	7	508,808	4.42
15,000 and 25,000	19	370,990	4.22	10	339,521	3.27	19	605,805	5.26
10,000 and 15,000	18	224,033	2.55	23	457,292	4.41	20	377,505	3.28
5,000 and 10,000	54	382,762	4.36	23	275,944	2.66	24	296,195	2.57
3,000 and 5,000	72	272,720	3.10	68	458,784	4.42	74	510,429	4.44
1,000 and 3,000	293	492,116	5.60	71	273,276	2.63	91	348,709	3.03
500 and 1,000	290	215,648	2.45	324	557,466	5.37	337	561,019	4.88
Under 500.....	679	159,410	1.81	322	231,375	2.23	310	219,571	1.91
				750	179,782	1.73	750	179,242	1.56
<b>Totals.....</b>	<b>1,443</b>	<b>4,352,122</b>	<b>49.52</b>	<b>1,605</b>	<b>5,572,058</b>	<b>53.70</b>	<b>1,640</b>	<b>6,252,416</b>	<b>54.31</b>

## Section 2.—Sex and Age Distribution

**Sex.**—The sex distribution of the Canadian people has been characterized since early colonial times by a preponderance of males, although this condition has been greatly modified in more recent years. In 1666, during the early years of settlement by French immigrants, 63·3 p.c. of the population were males. In 1784, when British immigration to Canada was commencing, there were 54,064 males and 50,759 females and by the middle of the nineteenth century there were 449,967 males to 440,294 females in Lower Canada, and 499,067 males to 452,937 females in the more newly settled Upper Canada. Since Confederation the newer sections of Canada—the west and the northwest—have shown the greatest excess of males.

From 1871 to 1941, for Canada as a whole, the proportion of males never dropped below 51 p.c. of the total population, whereas for Western Canada it varied between 53 p.c. and 59 p.c.

### 3.—Sex Distribution of the Population, by Provinces and Territories, Census Years 1911-41

NOTE.—Figures for the Censuses of 1871, 1881, 1891 and 1901 are given at p. 150 of the 1948-49 Year Book.

Province or Territory	1911		1921		1931		1941	
	Male	Female	Male	Female	Male	Female	Male	Female
P. E. Island.....	47,069	46,659	44,887	43,728	45,392	42,646	49,228	45,819
Nova Scotia.....	251,019	241,319	266,472	257,365	263,104	249,742	296,044	281,918
New Brunswick...	179,867	172,022	197,351	190,525	208,620	199,599	234,097	223,304
Quebec.....	1,012,815	992,961	1,179,651	1,180,859	1,447,326	1,427,336	1,672,982	1,658,900
Ontario.....	1,301,272	1,226,020	1,481,890	1,451,772	1,748,844	1,682,839	1,921,201	1,866,454
Manitoba.....	252,954	208,440	320,567	289,551	368,065	332,074	378,079	351,665
Saskatchewan.....	291,730	200,702	413,700	343,810	499,935	421,850	477,563	418,429
Alberta.....	223,792	150,503	324,208	264,246	400,199	331,406	426,455	369,711
British Columbia..	251,619	140,861	293,409	231,173	385,219	309,044	435,031	382,830
Yukon.....	6,508	2,004	2,819	1,338	2,825	1,405	3,153	1,761
N.W.T.....	3,350	3,157	4,204	3,939	5,012	4,304	6,700	5,328
<b>Canada.....</b>	<b>3,821,995</b>	<b>3,381,648</b>	<b>4,529,643<sup>1</sup></b>	<b>4,258,306</b>	<b>5,374,541</b>	<b>5,002,245</b>	<b>5,900,536</b>	<b>5,606,119</b>

<sup>1</sup> Includes 485 members of the Royal Canadian Navy recorded separately in 1921.

Immigration has influenced the sex distribution of the population, as between provinces, in widely different degree. In the older settlements of Quebec and parts of New Brunswick and Ontario, where the populations are of French basic stock, immigration has not played as great a part in upsetting the normal distribution of the sexes as it has in the other provinces. Even in Ontario immigrants from Continental European countries do not settle as readily and are not assimilated as completely as in the newer western provinces.

A characteristic of population distribution since 1911 has been the rapid growth of urban centres due to the far-reaching developments in manufacturing that have entirely changed the economic picture. Summary figures showing the disparity between the sexes in the matter of urban concentration in 1911, 1921, 1931 and 1941 in the total population are given in the following tabulation. In urban centres where the percentage of males is large the percentage of females is also large. Each decade emphasizes the greater opportunities for female employment in urban centres as compared with rural districts.

Item	1911	1921	1931	1941
Excess of all males over all females per 100 of total population.....	6·07	3·09	3·59	2·56
Percentage of females in urban centres to all females.....	47·12	51·78	55·98	56·61
Percentage of males in urban centres to all males.....	43·91	47·41	51·57	52·18
Excess of urban females over urban males per 100 of urban population	-2·54	1·32	0·52	1·52



Table 4 gives the position of Canada among other countries of the world in regard to masculinity.

#### 4.—Masculinity of the Populations of Various Countries

NOTE.—The minus sign (—) indicates a deficiency of males.

Country	Year	Excess of Males over Females per 100 Population	Country	Year	Excess of Males over Females per 100 Population
India.....	1941	3.36	New Zealand.....	1945	—2.15
<b>Canada.....</b>	<b>1941</b>	<b>2.56</b>	Japan.....	1947	—2.36
Argentina.....	1947	2.35	Norway.....	1930	—2.49
Ireland.....	1946	1.20	Northern Ireland.....	1937	—2.66
Union of South Africa.....	1946	0.70	Czechoslovakia.....	1947	—2.83
Bulgaria.....	1942	0.60	Austria.....	1939	—3.11
United States.....	1940	0.34	Switzerland.....	1941	—3.40
Australia.....	1947	0.20	France.....	1940	—3.62
Sweden.....	1945	—0.46	Scotland.....	1931	—3.94
Netherlands.....	1930	—0.63	Spain.....	1940	—3.97
Greece.....	1928	—0.85	Portugal.....	1940	—4.01
Chile.....	1940	—0.88	Union of Soviet Socialist Republics.....	1940	—4.13
Denmark.....	1945	—0.93	England and Wales.....	1931	—4.22
Belgium.....	1930	—0.96	Poland.....	1946	—8.02
Italy.....	1936	—1.82	Germany.....	1946	—18.87
Finland.....	1940	—2.13			

<sup>1</sup> White population only.

Estimates of the population by age and sex for the intercensal years 1942-48 are given in Table 5, p. 159.

**Age.**—The age distribution of a population is fundamental to most, if not all, other analyses, for the age factor influences employment, marriage, birth rates and death rates, education, immigration, criminology and a multitude of events and activities that are of great importance in the national life.

Immigration has a strong influence on age distribution: it does not directly affect the very young sections of the population except to a small degree, but it immediately affects the age groups between the 'teens' and the 'twenties' and its effects are carried to the older groups as time goes by. Thus, the influence of the very heavy immigration of the early years of the century (1900-11) is indicated by the fact that, in 1901, 175 persons per 1,000 of the total population were in the age group 20-29 years and 131 persons per 1,000 in the group 30-39 years: a decade later, 190 per 1,000 were in the former group and 143 in the latter. Since immigration slowed down very decidedly after the outbreak of war in 1914, the influence of these earlier accretions to the population has crept through the upper age groups year by year until it has now reached those of the population in the 'fifties'.

Between 1931 and 1941 a more pronounced general ageing of the population is shown owing to practically non-existent migration and a lower birth rate—factors that were emphasized during the depression years. In 1921 the number per 1,000 of total population between 40 and 59 years of age was 183.0; it was 201 in 1931 and 210 in 1941. Greater proportional increases, however, are shown by the group 60 years of age or over; this group represented 75 per 1,000 of the total population in 1921, 84 in 1931 and no less than 102 per 1,000 in 1941.

**Estimates of Population by Sex and Age.**—The figures for 1941 in Table 5 are those of the Census. For the other years they are estimates, calculated from the census figures, the births and deaths in each year, and known migration into and out of the country.



The starting point in this calculation is the population of the 1941 Census, taken at the beginning of June. The number of children under one year of age on June 1 of each subsequent year was obtained by subtracting the number who had died during the previous 12 months from the number who had been born. At each other year of age, the deaths at that age were subtracted from the census figures to give an estimate of the number at the next higher age in the following year. This process was carried forward for each year and gave what may be called the 'expected' figures of population for that year. These expected figures are later to be compared with the actual figures of the 1951 Census, the differences at each age noted, and the estimates revised in the light of these differences.

The population of Canada in 1931 and 1941 by sex and age is shown graphically in the Chart facing p. 232.

### 5.—Population by Age Groups and Sex, Census of 1941, with Estimates (as at June 1) for 1942-48

(Exclusive of Yukon and the Northwest Territories)

Sex and Age	1941	1942	1943	1944	1945	1946	1947	1948
<b>Males—</b>		'000	'000	'000	'000	'000	'000	'000
0-4 years.....	532,825	553	579	599	634	657	696	747
5-9 ".....	528,134	520	518	528	525	549	570	587
10-14 ".....	555,519	554	550	559	553	531	535	532
15-19 ".....	564,548	558	555	554	550	542	539	541
20-24 ".....	517,145	532	545	559	549	545	548	554
25-29 ".....	487,396	492	493	490	492	506	516	525
30-34 ".....	430,664	440	450	462	468	475	483	491
35-39 ".....	395,653	402	407	411	414	430	439	444
40-44 ".....	348,039	354	362	371	378	382	391	400
45-49 ".....	332,008	332	332	332	333	341	348	354
50-54 ".....	315,404	317	318	318	318	313	316	322
55-59 ".....	274,893	281	285	290	293	290	291	298
60-64 ".....	218,202	225	231	238	244	245	249	257
65-69 ".....	162,233	167	172	178	183	186	192	200
70-74 ".....	110,944	115	118	122	125	127	133	140
75-79 ".....	67,104	69	71	73	75	77	81	85
80-84 ".....	34,038	35	36	36	37	38	41	43
85-89 ".....	12,607	13	13	14	14	15	16	17
90+ ".....	3,327	3	4	4	4	5	6	6
14 years or over.....	4,384,833	4,445	4,504	4,560	4,585	4,624	4,696	4,783
21 years or over.....	3,599,186	3,659	3,718	3,785	3,821	3,865	3,940	4,025
<b>Totals, Males.....</b>	<b>5,890,683</b>	<b>5,962</b>	<b>6,039</b>	<b>6,118</b>	<b>6,169</b>	<b>6,254</b>	<b>6,390</b>	<b>6,543</b>
<b>Females—</b>								
0-4 years.....	516,916	535	557	576	608	628	664	713
5-9 ".....	515,791	510	507	515	511	533	551	567
10-14 ".....	543,815	542	539	529	522	520	522	518
15-19 ".....	554,190	549	544	543	540	535	532	531
20-24 ".....	513,846	527	540	550	552	550	552	555
25-29 ".....	478,017	484	486	487	499	511	522	530
30-34 ".....	411,703	423	436	449	462	471	480	490
35-39 ".....	362,690	370	377	385	396	412	424	433
40-44 ".....	327,566	332	337	343	350	355	366	377
45-49 ".....	302,361	305	308	312	316	321	327	334
50-54 ".....	275,611	280	284	287	290	290	295	301
55-59 ".....	231,450	238	244	251	257	259	262	270
60-64 ".....	188,415	194	199	204	210	213	219	228
65-69 ".....	145,099	149	154	159	163	167	173	179
70-74 ".....	105,878	109	112	115	118	120	125	130
75-79 ".....	68,457	70	72	74	76	78	81	85
80-84 ".....	37,410	38	39	40	41	42	45	47
85-89 ".....	15,010	15	16	16	17	18	20	20
90+ ".....	4,805	5	5	5	5	6	8	8
14 years or over.....	4,130,044	4,197	4,262	4,328	4,397	4,453	4,535	4,621
21 years or over.....	3,358,359	3,428	3,497	3,569	3,639	3,703	3,789	3,877
<b>Totals, Females.....</b>	<b>5,599,030</b>	<b>5,675</b>	<b>5,756</b>	<b>5,840</b>	<b>5,933</b>	<b>6,029</b>	<b>6,168</b>	<b>6,316</b>
<b>Grand Totals.....</b>	<b>11,489,713</b>	<b>11,637</b>	<b>11,795</b>	<b>11,958</b>	<b>12,102</b>	<b>12,283</b>	<b>12,558</b>	<b>12,859</b>

### Section 3.—Marital Status

Next to the sex and age distribution of a population, that of marital status is probably the most fundamental. Its incidence is twofold: 'vital' and 'economic and social'.

The vital basis lies in the influence of the marriage state on the fertility of a population and, from this angle, close analyses of marital status, by age, are important. The ages of females between 15 and 45 years have more significance than those of males; if the proportion of females in this group is small, the expected proportion of births will also be small. It has been shown that for the Canadian population the combined influences of age of the population, age of the married females, and proportion of females married has become steadily more favourable to the birth rate from 1871 to 1921 but that, since the latter date, the trend has been less favourable.

#### 6.—Marital Status of the Population, 15 Years of Age or Over, by Sex, Census Years 1911-41

NOTE.—Figures for censuses previous to 1911 are not comparable.

Year and Sex	Single		Married		Widowed		Divorced and Legally Separated		Total <sup>1</sup>
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	
1911..... M.	1,161,088	45.0	1,326,959	51.5	88,716	3.4	2,087	0.1	2,597,133
F.	765,092	34.8	1,247,761	56.8	178,961	8.2	2,255	0.1	2,201,780
1921..... M.	1,173,730	39.2	1,697,145	56.7	119,571	4.0	3,664	0.1	2,994,720
F.	881,771	32.0	1,630,636	59.2	236,283	8.6	3,726	0.1	2,752,637
1931..... M.	1,519,844	41.0	2,032,691	54.9	148,851	4.0	4,048	0.1	3,713,221
F.	1,148,977	34.0	1,937,458	57.3	288,530	8.5	3,392	0.1	3,378,579
1941..... M.	1,708,528	39.8	2,363,528	55.2	170,743	4.0	42,770	1.0	4,281,237
F.	1,328,489	33.0	2,292,478	56.9	354,378	8.8	51,399	1.3	4,026,867

<sup>1</sup> Includes persons whose marital status was not stated; percentages are based on stated condition.

In Canada as a whole there are more married males than married females. Other striking statistics of marital status are the great preponderance of widows compared to widowers and the large and increasing numbers of divorced and legally separated persons.

Marital status of the 1941 population 15 years of age or over, by provinces and sex, is shown at p. 102 of the 1945 Year Book.

### Section 4.—Racial Origins

A population composed of diverse racial stocks gives rise to political, economic and social problems quite different in nature from those of one with a small admixture of foreign elements, although, to the extent that certain racial stocks are more readily assimilated than others, the problems are mitigated. It is equally true that the different educational, moral, economic, religious and political backgrounds of a people of mixed origins lend variety and diversity to the national life.

The two basic stocks of the Canadian people are the French and the English: historically the French is much the older and, excepting at the time of the Census of 1921, has exceeded in numbers any one of the basic British Isles stocks.

### 7.—Racial Origins of the Population, Census Years 1921-41, with Percentage Distribution for 1941

NOTE.—Figures for the Censuses of 1871, 1881, 1901 and 1911 are given at p. 154 of the 1948-49 Year Book.

Racial Origin	1921	1931	1941		Racial Origin	1921	1931	1941	
	No.	No.	No.	p.c.		No.	No.	No.	p.c.
British Isles.	4,868,738	5,381,071	5,715,904	49·68	Other Euro- pean—con.				
English.....	2,545,358	2,741,419	2,968,402	25·80	Norwegian...	68,856	93,243	100,718	0·88
Irish.....	1,107,803	1,230,808	1,267,702	11·02	Polish.....	53,403	145,503	167,485	1·45
Scottish....	1,173,625	1,346,350	1,403,974	12·20	Roumanian..	13,470	29,056	24,689	0·21
Other.....	41,952	62,494	75,826	0·66	Russian.....	100,064	88,148	83,708	0·73
Other					Swedish....	61,503	81,306	85,396	0·74
European...	3,699,846	4,753,242	5,526,964	48·03	Ukrainian <sup>1</sup> .	106,721	225,113	305,929	2·66
French.....	2,452,743	2,927,990	3,483,038	30·27	Yugoslavic.	3,906	16,174	21,214	0·18
Austrian....	107,671	48,639	37,715	0·33	Other.....	16,180	6,232	6,527	0·06
Belgian.....	20,234	27,585	29,711	0·26					
Bulgarian...	1,765	3,160	3,260	0·03	Asiatic.....	65,914	84,548	74,064	0·64
Czech and Slovak....	8,840	30,401	42,912	0·37	Chinese.....	39,587	46,519	34,627	0·30
Danish.....	21,124	34,118	37,439	0·33	Japanese....	15,868	23,342	23,149	0·20
Finnish....	21,494	43,885	41,683	0·36	Other.....	10,459	14,687	16,288	0·14
German.....	294,635	473,544	464,682	4·04	Indian and Eskimo.....	113,724	128,890	125,521	1·09
Greek.....	5,740	9,444	11,692	0·10	Negro.....	18,291	19,456	22,174	0·19
Hungarian...	13,181	40,582	54,598	0·47	Other.....	187	681	36,753 <sup>2</sup>	0·32
Icelandic...	15,876	19,382	21,050	0·18	Not stated..	21,249	8,898	5,275	0·05
Italian.....	66,769	98,173	112,625	0·98					
Jewish.....	126,196	156,726	170,241	1·48					
Lithuanian..	1,970	5,876	7,789	0·07					
Nether- land.....	117,505	148,962	212,863	1·85	<b>Totals.....</b>	<b>8,787,949</b>	<b>10,376,786</b>	<b>11,506,655</b>	<b>100·00</b>

<sup>1</sup> Includes Bukovinian, Galician and Ruthenian.

<sup>2</sup> Includes 35,416 half-breeds.

Racial origins of the population by provinces and territories in 1941 are given at p. 106 of the 1945 edition of the Year Book.

## Section 5.—Religions

At each census the actual numbers attached to any religious denomination, as reported by the persons enumerated, have been recorded. The distribution of the principal denominations as at the Censuses of 1921, 1931 and 1941 is given in Table 8.

### 8.—Principal Religious Denominations of the Population, Census Years 1921-41, with Percentage Distribution for 1941

NOTE.—More detailed figures for the Censuses of 1871, 1881, 1891, 1901 and 1911 are given at p. 155 of the 1948-49 Year Book.

Religion	1921	1931	1941		Religion	1921	1931	1941	
	No.	No.	No.	p.c.		No.	No.	No.	p.c.
Anglican.....	1,407,780	1,635,615	1,751,188	15·22	Roman Catholic....	3,389,626	4,285,388 <sup>3</sup>	4,986,552 <sup>3</sup>	43·34
Baptist.....	421,730	443,341	483,592	4·20	United Church of Canada..	8,728	2,017,375	2,204,875	19·16
Congrega- tionalist....	30,730	694 <sup>1</sup>	2	...	Other.....	549,048	573,837	681,781	5·92
Jewish.....	125,197	155,614	168,367	1·46					
Lutheran....	286,458	394,194	401,153	3·49	<b>Totals.....</b>	<b>8,787,949</b>	<b>10,376,786</b>	<b>11,506,655</b>	<b>100·00</b>
Methodist..	1,159,246	2	829,147 <sup>1</sup>	7·21					
Presbyterian	1,409,406	870,728 <sup>1</sup>	829,147 <sup>1</sup>	7·21					

<sup>1</sup> Not included in "United Church".  
Greek Catholics in 1931 and 185,657 in 1941.

<sup>2</sup> Included in "United Church".

<sup>3</sup> Includes 186,654

Details of leading religious denominations by provinces are given at p. 109 of the 1945 edition of the Year Book; those of the populations of the nine leading cities are shown in Table 14 of the 1946 Year Book at p. 107.



## Section 6.—Birthplaces

Table 9 gives the total population by country of birth for the census years 1921, 1931 and 1941. The census, under birthplace, collects information on both country of birth of the immigrant arrivals in Canada and the province of birth of the native-born.

### 9.—Birthplaces of the Population, Census Years 1921-41

NOTE.—Figures for the Censuses of 1871, 1881, 1891, 1901 and 1911 are given at p. 158 of the 1948-49 Year Book.

Birthplace	1921	1931	1941	Birthplace	1921	1931	1941
No.	No.	No.	No.	No.	No.	No.	No.
Canada.....	6,832,224	8,069,261	9,487,808	Union of Soviet Socialist Republics <sup>2</sup> .....	112,412	133,869	124,402
British Isles.....	1,025,119	1,138,942	960,125	Scandinavian countries <sup>3</sup> .....	64,795	90,042	72,473
Other Commonwealth <sup>1</sup> .....	40,329	45,888	43,644	Central European countries <sup>4</sup> .....	159,379	317,350	309,360
Europe.....	459,325	714,462	653,705	Other Europe.....	7,667	11,002	9,810
Belgium.....	13,276	17,033	14,773	Asia.....	53,636	60,608	44,443
Finland.....	12,156	30,354	24,387	United States.....	374,022	344,574	312,473
France.....	19,247	16,756	13,795	Other countries.....	3,294	3,051	3,512
Germany.....	25,266	39,163	28,479				
Greece.....	3,769	5,579	5,871				
Italy.....	35,531	42,578	40,432				
Netherlands.....	5,827	10,736	9,923				
				<b>Totals.....</b>	<b>8,787,949</b>	<b>10,376,786</b>	<b>11,506,655<sup>5</sup></b>

<sup>1</sup> Includes "born at sea".

<sup>2</sup> Includes Lithuania and Ukraine.

<sup>3</sup> Includes Denmark,

Iceland, Norway and Sweden.

<sup>4</sup> Includes Austria, Czechoslovakia, Hungary, Yugoslavia, Poland,

Galicia and Roumania.

<sup>5</sup> Includes "birthplace not stated".

Detailed information on this subject will be found at pp. 111-117 of the 1943-44 Year Book and at pp. 156-158 of the 1948-49 edition.

## Section 7.—Citizenship

Until the Canadian Citizenship Act was passed in 1946 (the Act came into force on Jan. 1, 1947), the basic legislation governing Canadian nationality was to be found in the Immigration Act. The present legislation is outlined at pp. 1178-1184 of the 1948-49 edition of the Year Book.

### 10.—Citizenship of the Population, by Nativity, 1941

Birthplace	Canadian Nationals	Aliens	Total <sup>1</sup>	Birthplace	Canadian Nationals	Aliens	Total <sup>1</sup>
No.	No.	No.	No.	No.	No.	No.	No.
Canada.....	9,475,252	12,521	9,487,808	Continental Europe—concl.			
Other Commonwealth.....	979,680	2,566	1,003,769	Union of Soviet Socialist Republics.....	96,236	21,235	117,598
United States.....	250,929	61,427	312,473	Sweden.....	21,450	5,700	27,160
				Yugoslavia.....	11,811	5,601	17,416
				Other.....	19,642	7,253	26,910
Continental Europe—				<b>Totals, Continental Europe.....</b>	<b>488,571</b>	<b>164,838</b>	<b>653,705</b>
Austria.....	40,898	9,803	50,713	Asia—			
Belgium.....	10,847	3,917	14,773	China.....	3,306	25,786	29,095
Czechoslovakia....	14,300	11,262	25,564	Japan.....	3,694	5,767	9,462
Denmark.....	9,422	4,540	13,974	Other.....	5,105	779	5,886
Finland.....	12,647	11,734	24,387	<b>Totals, Asia.....</b>	<b>12,105</b>	<b>32,332</b>	<b>44,443</b>
France.....	10,518	3,269	13,795	Other.....	2,993	519	3,512
Germany.....	20,771	7,679	28,479	Not stated.....	780	137	945
Hungary.....	21,445	10,359	31,813				
Italy.....	33,661	6,764	40,432				
Netherlands.....	6,641	3,276	9,923				
Norway.....	20,966	5,933	26,914				
Poland.....	114,755	40,624	155,400				
Roumania.....	22,561	5,889	28,454	<b>Grand Totals.....</b>	<b>11,210,310</b>	<b>274,340</b>	<b>11,506,655<sup>2</sup></b>

<sup>1</sup> Includes not stated.

<sup>2</sup> Includes 21,515 British-born persons who had not at the date of the census acquired Canadian domicile.



The Census of 1941 shows that less than 1 p.c. of the total Canadian-born and other British-born population had lost their Canadian citizenship through renunciation or marriage.

Over 80 p.c. of the United States-born persons in Canada, who form 2.7 p.c. of the total population, had become Canadian citizens together with 74.7 p.c. of the Continental European-born; of those born in Asiatic countries 72.7 p.c. remained aliens. Of the total population, only 2.4 p.c. were aliens.

## Section 8.—Languages and Mother Tongues

Statistics under this heading for the 1941 Census are given at pp. 122-123 of the 1947 Year Book.

## Section 9.—School Attendance

Statistics under this heading for the 1941 Census will be found at p. 138 of the 1943-44 Year Book.

## Section 10.—Blind and Deaf-Mutes

Statistics regarding blind and deaf-mutes are given at p. 126 of the 1945 Year Book and in greater detail in Vol. IV of the 1941 Census.

## Section 11.—Occupations

Figures for Canada, excluding Yukon and the Northwest Territories, show that 3,676,563 males and 833,972 females, 14 years or over, or a total of 4,510,535 persons, including members of the Armed Forces, were gainfully occupied at the time of the 1941 Census. Males represented 81.5 p.c. and females 18.5 p.c. of the total gainfully occupied. The population of the nine provinces consisted of 5,890,683 males and 5,599,030 females or a total of 11,489,713 persons. The gainfully occupied, therefore, accounted for 39.3 p.c. of the total population; gainfully occupied males representing 62.4 p.c. of the total male population and gainfully occupied females 14.9 p.c. of the total female population.

Summary tables of the occupations of the Canadian people for the 1941 Census are given at pp. 1062-1073 of the 1943-44 Year Book and at pp. 160-161 of the 1948-49 edition.

## Section 12.—Dwellings, Households and Families

Summary data on buildings, dwellings, households and families as at the date of the 1941 Census are given at pp. 120-126 of the 1946 Year Book, pp. 126-127 of the 1947 Year Book, and pp. 161-162 of the 1948-49 edition.

**Estimates of Households and Families, 1947-48.**—The statistics on households and families in 1947 and 1948, as shown in Table 11 are derived from the data collected in conjunction with the 2 p.c. sample survey of the labour force for June, 1947 and 1948. It should be noted that the survey covers the total non-institutional civilian population of Canada (exclusive of Yukon and the Northwest Territories), with the exception of a small unsampled population in the northern areas of certain provinces. However, the figures in the table include estimates for the unsampled areas.

**11.—Estimated Number of Households and Families, by Number of Persons and Average Size, and by Regions, 1941, 1947 and 1948**

Region and Year	House- holds	Increase Since 1941	Persons in House- holds	Average Size of House- hold	Families	Increase Since 1941	Persons in Families	Average Size of Family
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
Maritime Provinces... 1941	243,672	...	1,130,410	4.6	236,630	...	985,872	4.2
1947	272,000	11.6	1,191,000	4.4	273,000	15.4	1,083,000	4.0
1948	286,000	17.4	1,217,000	4.3	285,000	20.4	1,134,000	4.0
Quebec..... 1941	663,426	...	3,331,882	5.0	647,946	...	2,937,828	4.5
1947	789,000	18.9	3,668,000	4.6	812,000	25.3	3,516,000	4.3
1948	793,000	20.3	3,749,000	4.7	804,000	24.1	3,519,000	4.4
Ontario..... 1941	969,267	...	3,787,655	3.9	909,210	...	3,235,793	3.6
1947	1,115,000	15.0	4,129,000	3.7	1,073,000	18.0	3,680,000	3.4
1948	1,154,000	19.1	4,241,000	3.7	1,117,000	22.9	3,848,000	3.4
Prairie Provinces..... 1941	593,677	...	2,421,905	4.1	532,130	...	2,109,322	4.0
1947	637,000	7.3	2,379,000	3.7	591,000	11.1	2,170,000	3.7
1948	660,000	11.2	2,431,000	3.7	590,000	10.9	2,211,000	3.7
British Columbia.... 1941	236,047	...	817,861	3.5	199,383	...	669,171	3.4
1947	315,000	33.4	1,032,000	3.3	293,000	47.0	966,000	3.3
1948	337,000	42.8	1,071,000	3.2	292,000	46.5	954,000	3.3
<b>Totals..... 1941</b>	<b>2,706,089</b>	<b>...</b>	<b>11,489,713</b>	<b>4.2</b>	<b>2,525,299</b>	<b>...</b>	<b>9,937,986</b>	<b>3.9</b>
<b>1947</b>	<b>3,128,000</b>	<b>15.6</b>	<b>12,399,000</b>	<b>4.0</b>	<b>3,042,000</b>	<b>20.5</b>	<b>11,415,000</b>	<b>3.7</b>
<b>1948</b>	<b>3,235,000</b>	<b>19.5</b>	<b>12,709,000</b>	<b>3.9</b>	<b>3,088,000</b>	<b>22.3</b>	<b>11,666,000</b>	<b>3.8</b>

*Household Defined.*—A household for purposes of the sample survey is a group of people living together in the same living quarters and sharing the same housekeeping arrangements. It may be a single family, or sometimes a single person or a group of unrelated persons or, perhaps, a family with a lodger or servant making up the household.

*Family Defined.*—For purposes of comparison with the 1941 Census statistics, a family in the sample survey was defined as a group of two or more persons, living in a dwelling, related either as husband or wife, with or without children, or as parent and child. Other relatives living in the same dwelling, including married children, where not counted as members of the family. However, where a married son (or daughter) and family were living in the same dwelling or household as their parents, they were counted as a second family in the dwelling.

### Section 13.—Quinquennial Census of the Prairie Provinces

The Census and Statistics Act of 1905 and the Statistics Act of 1918 (replaced by the Statistics Act, 1948) provide for a census of population and agriculture for the Provinces of Manitoba, Saskatchewan and Alberta, to be taken in 1906 and every tenth year thereafter, in addition to the Dominion Decennial Census.

The latest Prairie Province Census was taken as of June 1, 1946, and a summary of the results available up to March, 1948, covering such general population characteristics as sex, age, marital status, birthplace, citizenship, mother tongue, years of schooling and migration, is presented at pp. 162-171 of the 1948-49 Year Book. Additional analyses, available since that date, are summarized in this edition. More detailed information may be obtained in bulletin form and will later be published in the census volumes.

The populations of the Provinces of Manitoba, Saskatchewan and Alberta as at June 1, 1946, are given in Table 12. The rural and urban classification shows that a definite trend towards urbanization has taken place since 1936. There has

been an actual decline in the rural population of Manitoba and Alberta since 1941, and in that of Saskatchewan since 1936. This movement is partly a development of the Second World War.

### 12.—Rural and Urban Populations of the Prairie Provinces, 1946, compared with Census Years 1906-46

Year	MANITOBA			SASKATCHEWAN			ALBERTA		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.
1906.....	227,598	138,090	365,688	209,301	48,462	257,763	127,320	57,875	185,195
1911.....	261,029	200,365	461,394	361,037	131,395	492,432	236,653	137,662	374,295
1916.....	312,846	241,014	553,860	471,538	176,297	647,835	307,693	188,749	496,442
1921.....	348,502	261,616	610,118	538,552	218,958	757,510	365,550	222,904	588,454
1926.....	360,198	278,858	639,056	578,206	242,532	820,738	373,751	233,848	607,599
1931.....	384,170	315,969	700,139	630,880	290,905	921,785	453,097	278,508	731,605
1936.....	400,289	310,927	711,216	651,274	280,273	931,547	486,335	286,447	772,782
1941.....	407,871	321,873	729,744	600,846	295,146	895,992	489,583	306,586	796,169
1946.....	389,592	337,331	726,923	515,928	316,760	832,688	448,934	354,396	803,330

A comparison of Table 13 with corresponding tables based on earlier censuses reveals that the proportion of the population in the older age groups has increased while the proportion in the younger age groups has decreased. This applies to all three provinces as the following percentages indicate. Population under 25 years of age in Manitoba declined from 51.4 p.c. of the total in 1931 to 44.0 p.c. in 1946; in Saskatchewan from 55.3 p.c. to 47.7 p.c.; and in Alberta from 51.7 p.c. to 46.3 p.c. Population 65 years of age or over in Manitoba increased from 4.5 p.c. of the total in 1931 to 7.3 p.c. in 1946; in Saskatchewan from 3.3 p.c. to 6.5 p.c.; and in Alberta from 3.5 p.c. to 6.3 p.c.

### 13.—Male and Female Populations of the Prairie Provinces by Five-Year Age Groups, 1946

Age Group	MANITOBA			SASKATCHEWAN			ALBERTA		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Under 5 years.....	36,577	34,585	71,162	43,295	41,013	84,308	43,623	41,673	85,296
5 - 9 .....	30,896	29,859	60,755	39,725	38,413	78,138	37,175	36,292	73,467
10 - 14 .....	30,426	29,258	59,684	39,904	38,739	78,643	36,435	35,471	71,906
15 - 19 .....	31,194	31,399	62,593	41,322	39,622	80,944	36,148	35,768	71,916
20 - 24 .....	31,842	33,495	65,337	39,220	35,601	74,821	34,428	35,023	69,451
25 - 29 .....	30,340	30,718	61,058	35,031	32,666	67,697	33,060	33,084	66,144
30 - 34 .....	28,601	28,653	57,254	31,362	29,236	60,598	30,746	29,765	60,511
35 - 39 .....	25,572	24,885	50,457	28,231	25,470	53,701	29,060	25,989	55,049
40 - 44 .....	21,885	20,262	42,147	24,124	20,491	44,615	26,555	21,233	47,788
45 - 49 .....	20,171	18,992	39,163	22,010	19,364	41,374	24,081	19,141	43,222
50 - 54 .....	19,328	18,104	37,432	22,078	17,888	39,966	21,689	16,834	38,523
55 - 59 .....	19,658	16,333	35,991	23,313	16,409	39,722	22,214	15,524	37,738
60 - 64 .....	17,227	13,516	30,743	20,609	13,227	33,836	19,462	12,436	31,898
65 - 69 .....	12,906	10,035	22,941	14,888	9,759	24,647	13,671	9,253	22,924
70 - 74 .....	8,178	6,529	14,707	8,849	6,090	14,939	8,248	5,870	14,118
75 - 79 .....	4,682	3,939	8,621	4,876	3,496	8,372	4,479	3,342	7,821
80 - 84 .....	2,245	2,160	4,405	2,204	1,892	4,096	1,965	1,697	3,663
85 - 89 .....	943	989	1,932	896	877	1,773	762	729	1,491
90 - 94 .....	218	221	439	192	219	411	164	183	347
95 - 99 .....	35	48	83	32	47	79	29	23	52
100 years or over.....	11	8	19	6	2	8	2	3	5
Totals.....	372,935	353,988	726,923	442,167	390,521	832,688	423,997	379,333	803,330



**Gainfully Occupied Population, 1931-46.**—The number of gainfully occupied males, 14 years of age or over, in the Prairie Provinces, declined from 799,433 in 1931 to 749,395 in 1946, or by 6.3 p.c. The latter figure, however, omitted about 9,000 gainfully occupied Indians on reserves, so that the actual decline would be somewhat less. The drop in the gainfully occupied males is all the more significant when it is considered that the total male population declined by only 2.3 p.c. while the male population 14 years of age or over increased by 2.9 p.c. during the period. Thus not only has the number of gainfully occupied males in the Prairie Provinces declined but the trend in the ratio of gainfully occupied males to the male population 14 years of age or over has also been downward. The more important factors contributing to this trend include the changing age structure of the population, earlier retirement of gainful workers and the later entry of young persons into gainful employment.

The number of gainfully occupied females, on the other hand, increased from 115,801 in 1931 to 143,474 in 1946, or by 23.9 p.c. The total female population increased by 3.5 p.c. since 1931 while the females, 14 years of age or over, increased by 13.3 p.c.

**14.—Gainfully Occupied, 14 Years of Age or Over, for the Prairie Provinces, by Sex, Census Years 1931-46**

Census Year	MANITOBA		SASKATCHEWAN		ALBERTA		PRAIRIE PROVINCES	
	Male	Female	Male	Female	Male	Female	Male	Female
	No.	No.	No.	No.	No.	No.	No.	No.
1931.....	225,573	44,893	301,261	37,459	252,599	33,449	799,433	115,801
1936.....	224,009	45,811	304,893	41,711	262,758	36,254	791,660	123,776
1941 (including Active Service)....	240,399	49,912	297,119	42,780	271,800	40,442	809,318	133,134
1941 (not including Active Service).	215,705	49,832	273,122	42,724	247,622	40,393	736,449	132,949
1946 <sup>1</sup> .....	225,320	54,609	267,253	43,233	256,822	45,632	749,395	143,474

<sup>1</sup> Exclusive of gainfully occupied Indians on reserves.

**Economic Status of the Population 14 Years of Age or Over, 1946.**—Table 15 classifies the population 14 years of age or over as gainfully occupied or not gainfully occupied (exclusive of Indians on reserves). The "gainfully occupied", or economically active category represents persons contributing directly to the production of goods and services at the time of the census. The "not gainfully occupied", or economically inactive population, includes a variety of classes of which homemakers formed the largest group. Young persons 14 to 24 years of age constituted only 0.3 and 0.5 p.c. of the male and female populations 14 years of age or over, respectively, persons 14 years of age or over with no occupation and not seeking employment accounted for 0.4 and 6.4 p.c., retired persons for 6.4 and 0.2 p.c., students for 9.3 and 9.6 p.c., and inmates of institutions for 1.2 and 0.8 p.c. of the respective male and female populations in this age group. The 12,285 male and 11,157 female Indians, 14 years of age or over, living on reserves are shown separately.



### 15.—Economic Status of the Population of the Prairie Provinces, 14 Years of Age or Over, by Sex, 1946

Economic Status	MANITOBA		SASKATCHEWAN		ALBERTA		PRAIRIE PROVINCES	
	Male	Female	Male	Female	Male	Female	Male	Female
	No.	No.	No.	No.	No.	No.	No.	No.
<b>Gainfully Occupied—</b>								
Employer.....	16,025	541	24,314	933	22,696	874	63,035	2,348
Own account.....	57,021	5,220	112,009	4,645	85,385	4,402	254,415	14,267
Wage-earners.....	134,159	46,159	101,511	35,146	126,519	37,686	362,189	118,991
No pay.....	18,115	2,689	29,419	2,509	22,222	2,670	69,756	7,868
<b>Totals, Gainfully Occupied...</b>	<b>225,320</b>	<b>54,609</b>	<b>267,253</b>	<b>43,233</b>	<b>256,822</b>	<b>45,632</b>	<b>749,395</b>	<b>143,474</b>
<b>Not Gainfully Occupied—</b>								
Homemakers.....	—	164,440	—	178,983	—	177,875	—	521,298
No occupation—all ages.....	2,355	18,731	1,883	22,083	1,473	16,423	5,711	57,237
14–24 years of age.....	1,856	9,144	1,526	13,412	1,187	9,490	4,569	32,046
Seeking employment.....	1,010	1,391	754	1,851	634	1,219	2,398	4,461
Not seeking employment.....	846	7,753	772	11,561	553	8,271	2,171	27,585
Retired <sup>1</sup> .....	20,522	678	19,665	245	18,973	360	59,160	1,283
Students <sup>2</sup> .....	24,685	21,342	30,583	29,769	30,244	27,852	85,512	78,963
Inmates of institutions <sup>3</sup> .....	3,730	2,451	3,982	2,223	3,289	1,784	11,001	6,458
<b>Totals, Not Gainfully Occupied..</b>	<b>51,292</b>	<b>207,642</b>	<b>56,113</b>	<b>233,303</b>	<b>53,979</b>	<b>224,294</b>	<b>161,384</b>	<b>665,239</b>
<b>Indians on reserves<sup>4</sup>.....</b>	<b>4,716</b>	<b>4,133</b>	<b>4,097</b>	<b>3,830</b>	<b>3,472</b>	<b>3,194</b>	<b>12,285</b>	<b>11,157</b>
<b>Totals, Population 14 Years of Age or Over.....</b>	<b>281,328</b>	<b>266,384</b>	<b>327,463</b>	<b>280,366</b>	<b>314,273</b>	<b>273,120</b>	<b>923,064</b>	<b>819,870</b>

<sup>1</sup> Persons retired from gainful occupations and admitted to institutions are included in the class "Inmates of institutions".

<sup>2</sup> Includes young persons in institutions attending school.

<sup>3</sup> See footnotes 1 and 2.

<sup>4</sup> Includes all Indians, 14 years of age or over, living on reserves.

**Occupations, 1946.**—Table 16, which classifies the gainfully occupied according to occupation groups and sex, shows that 47.9 p.c. of the total gainfully occupied males in the Prairie Provinces were engaged in agricultural occupations, 8.2 p.c. were in manufacturing and mechanical occupations, 6.5 p.c. in proprietary and managerial occupations, 6.2 p.c. in protective (including Armed Forces) services, and 6.2 p.c. in transportation.

### 16.—Gainfully Occupied of the Prairie Provinces, 14 Years of Age or Over, by Occupation Groups and Sex, 1946

Occupation Group	MANITOBA		SASKATCHEWAN		ALBERTA		PRAIRIE PROVINCES	
	Male	Female	Male	Female	Male	Female	Male	Female
	No.	No.	No.	No.	No.	No.	No.	No.
Proprietary and managerial.....	15,909	3,991	15,842	2,592	17,150	2,658	48,901	9,241
Professional.....	7,838	7,597	6,487	8,517	7,819	7,742	22,144	23,856
Clerical.....	11,448	15,498	5,842	8,913	8,256	11,132	25,546	35,543
Agricultural.....	78,893	1,795	160,726	3,239	119,236	2,659	358,858	7,593
Fishing, hunting and trapping.....	2,416	—	1,259	7	1,559	5	5,234	12
Logging.....	1,136	—	957	—	1,464	—	3,557	—
Mining and quarrying.....	1,949	4	537	—	6,586	—	9,072	4
Manufacturing and mechanical <sup>1</sup> .....	27,478	5,382	13,798	1,016	20,416	2,041	61,692	8,439
Construction.....	12,414	43	7,529	6	11,574	25	31,517	74
Transportation.....	16,490	158	14,062	48	15,943	130	46,495	336
Communications.....	1,656	954	1,335	895	1,487	735	4,478	2,584
Commercial.....	8,720	5,807	8,964	4,000	8,983	4,683	26,667	14,490
Financial.....	1,463	61	1,001	33	1,333	73	3,797	167
Service <sup>2</sup> .....	24,308	12,611	19,387	13,574	22,028	13,299	65,723	39,484
Personal.....	6,044	11,578	4,757	12,188	6,569	12,094	18,070	35,860
Protective.....	17,009	947	14,328	1,364	15,245	1,132	46,582	3,443
Other.....	855	86	302	22	414	73	1,071	181
Labourers <sup>3</sup> .....	11,357	415	7,951	145	10,812	291	30,120	851
Not stated.....	1,845	293	1,576	248	2,176	259	5,597	800
<b>All Occupations.....</b>	<b>225,320</b>	<b>54,609</b>	<b>267,253</b>	<b>43,233</b>	<b>256,822</b>	<b>45,632</b>	<b>749,395</b>	<b>143,474</b>

<sup>1</sup> Includes electric light and power production and stationary enginemn.

<sup>2</sup> Exclusive of professional service.

<sup>3</sup> Labourers in all industries except agriculture, fishing, logging, and mining are included in this group.

**Earnings and Employment of Wage-Earners, 1946.**—At the 1946 Census 48·3 p.c. of the total gainfully occupied males were reported as wage-earners, i.e., as working on a wage, salary, commission, or piece-rate basis. The average earnings per week of employment at \$31·16 in Manitoba, \$27·64 in Saskatchewan, and \$31·33 in Alberta, were between 23 and 29 p.c. higher than the average earnings per week of employment reported at the 1941 Census.

Female wage-earners accounted for 82·9 p.c. of the total gainfully occupied females in the Prairie Provinces at the time of the 1946 Census. Average earnings per week of employment at \$18·25 in Manitoba, \$17·57 in Saskatchewan, and \$18·79 in Alberta, were also higher than those reported in 1941 by 37 to 45 p.c.

**17.—Wage-Earners in the Prairie Provinces, 14 Years of Age or Over, together with Average Earnings, Weeks Employed, and Earnings per Week Employed in the 12 Months Prior to June 1, 1946, also Average Family Earnings.**

Province	Average Earnings		Average Weeks Employed		Average Earnings per Week Employed		Total Wage-Earners		Wage-Earner Families	
	Male	Female	Male	Female	Male	Female	Male	Female	Average Earnings of Head	Average Family Earnings
	\$	\$	No.	No.	\$	\$	No.	No.	\$	\$
Manitoba.....	1,444	825	46·34	45·21	31·16	18·25	134,159	46,159	1,706	1,958
Saskatchewan....	1,245	767	45·04	43·65	27·64	17·57	101,511	35,146	1,565	1,735
Alberta.....	1,422	830	45·39	44·18	31·33	18·79	126,519	37,686	1,688	1,879
<b>Prairie Provinces</b>	<b>1,352</b>	<b>809</b>	<b>45·64</b>	<b>44·43</b>	<b>30·28</b>	<b>18·21</b>	<b>362,189</b>	<b>118,991</b>	<b>1,664</b>	<b>1,873</b>

**Unemployment on May 31, 1946.**—In view of the high level of employment at the time of the 1946 Census, only 19,469 male and 3,141 female wage-earners were reported as having “no job” and another 2,288 males and 542 females as being on “lay-off” on May 31, 1946, in the three Prairie Provinces. Thus only 6·0 p.c. of the male and 3·1 p.c. of the female wage-earners were unemployed.

**Dwellings, Households, and Families.**—During the period 1936-46 the number of households in the Prairie Provinces increased by 6·2 p.c. and the number of families by 11·5 p.c. At the same time the total population of the Prairie Provinces increased by only 1·8 p.c. reflecting a reduction in the average size of households from 4·3 in 1936 to 3·9 in 1946, and a reduction in the average size of families from 4·2 in 1936 to 3·8 in 1946.

*Definitions of Dwelling, Household, and Family at the Quinquennial Census.*—A “dwelling” is a structurally separate set of self-contained living premises having its own entrance from outside the building containing it or from a common passage or stairway inside. A “household” refers to all the persons living in one dwelling

unit, irrespective of whether or not they are related to each other by ties of kinship. A "family", on the other hand, consists of husband and wife (with or without children) or a parent with an unmarried child (or children) living together within the same household.

**18.—Households and Families in the Prairie Provinces, together with Average Persons per Household and per Family, Rural and Urban, 1936 and 1946**

Item	1936				1946			
	Households <sup>1</sup>	Persons per Household	Families	Persons per Family	Households <sup>1</sup>	Persons per Household	Families	Persons per Family
	No.	No.	No.	No.	No.	No.	No.	No.
<b>Manitoba—</b>								
Rural.....	85,690	4.6	80,098	4.5	92,221	4.2	87,964	4.0
Urban.....	75,364	4.0	71,722	3.7	83,021	3.9	88,192	3.2
<b>Totals, Manitoba.....</b>	<b>161,054</b>	<b>4.3</b>	<b>151,820</b>	<b>4.1</b>	<b>175,242</b>	<b>4.1</b>	<b>176,156</b>	<b>3.6</b>
<b>Saskatchewan—</b>								
Rural.....	139,201	4.6	123,658	4.7	122,777	4.2	110,858	4.2
Urban.....	68,709	3.9	61,486	3.9	82,207	3.7	77,748	3.4
<b>Totals, Saskatchewan..</b>	<b>207,910</b>	<b>4.4</b>	<b>185,144</b>	<b>4.4</b>	<b>204,984</b>	<b>4.0</b>	<b>188,606</b>	<b>3.9</b>
<b>Alberta—</b>								
Rural.....	112,156	4.3	95,250	4.4	111,051	4.0	97,299	4.1
Urban.....	73,569	3.8	65,700	3.7	97,649	3.5	90,588	3.3
<b>Totals, Alberta.....</b>	<b>185,725</b>	<b>4.1</b>	<b>160,950</b>	<b>4.1</b>	<b>208,700</b>	<b>3.8</b>	<b>187,887</b>	<b>3.7</b>

<sup>1</sup> Exclusive of hotel and institutional households.

**19.—Households and Families for Urban Centres of 5,000 or Over in the Prairie Provinces, 1946**

Province and Urban Centre	Households <sup>1</sup>	Families	Province and Urban Centre	Households <sup>1</sup>	Families
No.	No.		No.	No.	
<b>Manitoba—</b>			<b>Saskatchewan—conc.</b>		
Brandon.....	4,015	4,254	Regina.....	14,227	15,085
Portage la Prairie.....	1,738	1,802	Saskatoon.....	11,287	11,729
St. Boniface.....	4,653	5,267	Swift Current.....	1,751	1,599
Selkirk.....	1,039	1,044	Weyburn.....	1,135	1,062
Transcona.....	1,475	1,639	Yorkton.....	1,336	1,392
Winnipeg city.....	56,289	61,346			
<b>Saskatchewan—</b>			<b>Alberta—</b>		
Moose Jaw.....	6,359	5,904	Calgary.....	28,506	26,742
North Battleford.....	1,492	1,407	Edmonton.....	29,921	28,783
Prince Albert.....	3,241	3,280	Lethbridge.....	4,636	4,366
			Medicine Hat.....	3,560	3,447

<sup>1</sup> Exclusive of hotel and institutional households.

**Housing.**—Tables 20, 21 and 22 summarize the principal housing characteristics of the 16 urban centres in the Prairie Provinces in 1946 which, when the 1941 Census was taken had populations of over 5,000.

**20.—Occupied Dwellings in Specified Urban Centres of the Prairie Provinces having Populations of Over 5,000 in 1941, by Tenure, showing Values, Rents and Persons and Rooms per Dwelling, 1946.**

Province and Urban Centre	Occupied Dwellings			Average Value <sup>2</sup>	Average Rent	Persons per Dwelling		Rooms per Dwelling	
	Owned	Rented	Total <sup>1</sup>			Owned	Rented	Owned	Rented
	No.	No.	No.	\$	\$	No.	No.	No.	No.
<b>Manitoba—</b>									
Brandon.....	2,647	1,365	4,015	2,900	26	4.0	3.4	5.4	4.3
Flin Flon <sup>3</sup> .....	1,104	820	1,930	2,990	27	4.2	3.4	4.1	3.3
Portage la Prairie.....	1,257	475	1,738	2,190	23	4.1	3.5	5.3	3.9
Transcona.....	1,062	410	1,475	2,930	21	4.2	3.7	5.0	4.2
Winnipeg city.....	27,918	28,237	56,289	5,610	31	4.3	3.6	5.8	3.9
St. Boniface.....	2,962	1,680	4,653	5,220	27	4.5	4.2	5.4	4.1
Winnipeg Metropolitan Area (including other parts).....	42,536	32,520	75,231	5,240	30	4.2	3.7	5.5	4.0
<b>Saskatchewan—</b>									
Moose Jaw.....	3,226	3,116	6,359	3,180	27	3.8	3.1	5.2	3.3
Prince Albert.....	1,902	1,320	3,241	3,070	24	4.4	3.8	5.1	3.8
Regina.....	7,187	6,577	14,227	5,070	30	4.5	3.7	5.6	3.8
Saskatoon.....	6,287	4,957	11,287	4,270	27	4.2	3.6	5.7	4.0
Swift Current.....	812	936	1,751	3,020	22	3.8	3.3	4.9	3.5
Yorkton.....	658	672	1,336	3,300	26	4.4	3.9	5.4	4.2
<b>Alberta—</b>									
Calgary.....	13,787	14,646	28,506	5,290	27	3.8	3.0	5.4	3.3
Edmonton.....	15,739	14,055	29,821	4,950	29	4.0	3.2	5.2	3.5
Lethbridge.....	2,360	2,269	4,636	4,420	27	3.8	3.2	5.1	3.4
Medicine Hat.....	2,195	1,358	3,560	2,910	25	3.7	3.3	5.2	3.8

<sup>1</sup> Includes dwellings not reported as to owner or tenant occupancy. single dwellings only.

<sup>2</sup> Includes owner-occupied

<sup>3</sup> Incorporated June 18, 1946.

**21.—Occupied Dwellings in Specified Urban Centres of the Prairie Provinces having Populations of Over 5,000 in 1941, by Type and Period of Construction, 1946**

Province and Urban Centre	Dwelling Types				Period of Construction					Total <sup>1</sup>
	Single	Semi-detached	Apartments and Flats	Other	Before 1911	1911-20	1921-30	1931-40	1941-46	
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
<b>Manitoba—</b>										
Brandon.....	3,136	44	811	24	2,063	981	451	203	196	4,015
Flin Flon <sup>2</sup> .....	1,122	5	793	10	—	4	227	1,553	131	1,930
Portage la Prairie.....	1,403	15	298	22	943	359	112	96	201	1,738
Transcona.....	1,223	5	244	3	93	741	357	134	112	1,475
Winnipeg city.....	31,726	1,096	22,924	543	24,051	16,541	8,735	3,127	2,845	56,289
St. Boniface.....	3,404	99	1,131	19	1,183	1,348	774	494	802	4,653
Winnipeg Metropolitan Area (including other parts).....	48,606	1,228	24,806	591	26,339	22,623	13,935	5,582	5,521	75,231
<b>Saskatchewan—</b>										
Moose Jaw.....	3,745	22	2,555	37	2,209	2,919	545	147	348	6,359
Prince Albert.....	2,547	12	673	9	814	586	365	590	563	3,241
Regina.....	10,227	171	3,714	115	2,976	4,113	4,687	1,201	1,079	14,227
Saskatoon.....	8,301	48	2,827	111	1,474	4,328	3,786	980	605	11,287
Swift Current.....	1,155	12	564	20	258	738	366	194	174	1,751
Yorkton.....	998	14	309	15	295	475	282	164	109	1,336
<b>Alberta—</b>										
Calgary.....	15,246	205	12,903	152	8,338	11,029	3,997	2,058	2,835	28,506
Edmonton.....	19,698	405	9,432	386	5,963	9,886	4,650	3,571	5,273	29,921
Lethbridge.....	2,759	134	1,710	33	1,872	1,130	407	611	494	4,636
Medicine Hat.....	2,459	41	1,039	21	1,050	1,425	243	193	591	3,560

<sup>1</sup> Includes dwellings for which the period of construction was not stated. <sup>2</sup> Incorporated June 18, 1946.



**22.—Household Facilities and Accessories in Occupied Dwellings in Specified Urban Centres of the Prairie Provinces (having Populations of Over 5,000 in 1941) in 1946.**

Urban Centre	Furnace Heating	Private Flush Toilet	Electric or Gas Range	Electric or Gas Refrigeration	Electric Washing Machine	Electric Vacuum Cleaner	Telephone	Radio	Auto-mobile
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
<b>Manitoba—</b>									
Brandon.....	78.1	69.1	33.8	31.7	61.2	33.2	51.8	91.5	30.6
Flin Flon.....	62.9	23.0	23.0	21.8	71.3	28.2	20.7	92.5	9.6
Portage la Prairie.....	52.6	39.0	21.3	17.8	56.4	24.0	42.2	85.1	25.0
Transcona.....	55.5	57.4	54.2	27.6	77.0	26.4	15.0	91.9	19.0
Winnipeg city.....	86.0 <sup>2</sup>	86.1	78.6	42.4	53.9	41.0	58.6	92.6	22.5
St. Boniface.....	72.6	85.7	75.2	36.5	70.1	36.5	48.6	94.4	23.6
Winnipeg Metropolitan Area (including other parts).....	79.8 <sup>2</sup>	81.1	75.9	39.3	56.4	39.5	56.3	92.3	23.2
<b>Saskatchewan—</b>									
Moose Jaw.....	79.8	52.9	34.6	22.4	58.8	31.5	51.8	91.5	23.5
Prince Albert.....	62.5	50.0	16.8	21.2	54.7	23.5	37.7	88.8	25.6
Regina.....	30.3	74.9	43.6	28.9	71.5	44.0	65.8	93.1	26.7
Saskatoon.....	81.7	68.2	30.3	23.9	64.9	40.6	63.6	92.0	26.8
Swift Current.....	60.5	42.0	22.0	21.0	58.5	24.1	33.1	87.4	27.3
Yorkton.....	59.3	57.2	17.6	28.4	63.1	32.0	45.5	88.4	30.8
<b>Alberta—</b>									
Calgary.....	78.2	71.7	95.3	28.8	56.5	43.0	51.5	90.8	23.8
Edmonton.....	74.1	69.5	77.6	22.1	57.5	36.0	47.4	90.4	27.0
Lethbridge.....	62.2	64.2	80.6	31.6	62.6	33.5	39.5	93.0	29.1
Medicine Hat.....	51.8	78.5	96.1	39.2	60.1	32.6	40.0	85.6	26.5

<sup>1</sup> Incorporated June 18, 1946.

<sup>2</sup> Includes homes heated by a central heating plant.

## Section 14.—Population Statistics for Newfoundland

As stated on p. 148, the following demographic statistics of Newfoundland are introduced into this edition of the Year Book to provide authentic background material for economic studies of the new province. The latest Newfoundland Census, that of 1945, took place before union and therefore, until the next Federal census is taken in 1951, population data for Newfoundland cannot be combined with data for other provinces.

The population of Newfoundland including Labrador, in 1945, was 321,819, mostly the descendants of settlers from southern England and Ireland. The population is unevenly distributed, nearly one-half living on the Avalon Peninsula in the eastern part of the Island. St. John's, the capital and Newfoundland's only city, is a trading and commercial centre of about 45,000 persons within the municipality, or 57,000 persons in greater St. John's. Apart from St. John's, there are 25 places having a population in excess of 1,000, principal among these being Corner Brook on the west coast, Bell Island and Carbonear on the Avalon Peninsula and Grand Falls, Windsor, Botwood and Bishop's Falls in the interior. The remainder of the population is distributed among more than 1,300 small settlements spread over 6,000 miles of coast line.

In Tables 23 to 31 additional information on the total population of Newfoundland by sex, age, marital status, racial origin and religion, will be found. Since 98 p.c. of the population is native-born, tables on birthplaces and country of birth of aliens are not included. Tables 30 and 31 contain statistics on the occupations of the gainfully employed population, and dwellings and families.

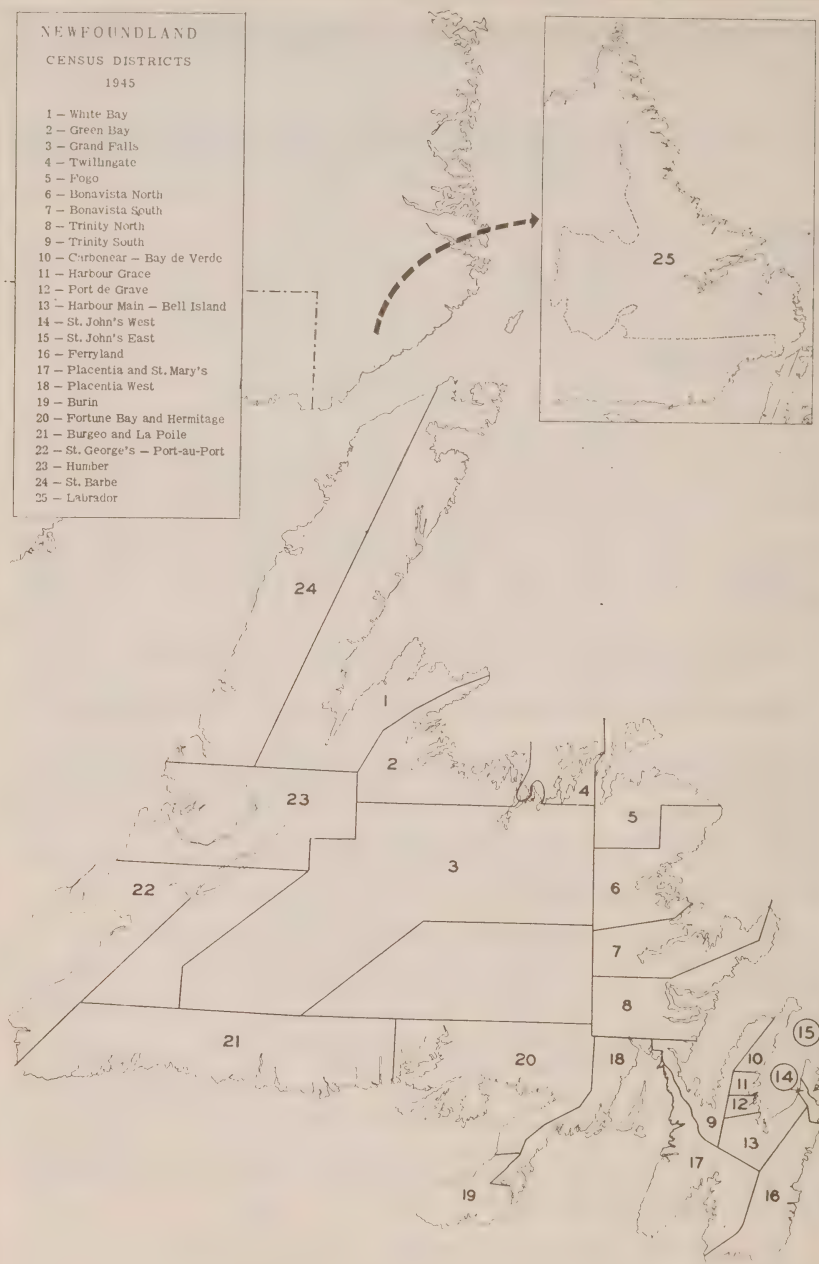
# CENSUS DISTRICTS OF NEWFOUNDLAND

## NEWFOUNDLAND

### CENSUS DISTRICTS

1945

- 1 - White Bay
- 2 - Green Bay
- 3 - Grand Falls
- 4 - Twillingate
- 5 - Pogo
- 6 - Bonavista North
- 7 - Bonavista South
- 8 - Trinity North
- 9 - Trinity South
- 10 - Carbonear - Bay de Verde
- 11 - Harbour Grace
- 12 - Port de Grave
- 13 - Harbour Main - Bell Island
- 14 - St. John's West
- 15 - St. John's East
- 16 - Ferryland
- 17 - Placentia and St. Mary's
- 18 - Placentia West
- 19 - Burin
- 20 - Fortune Bay and Hermitage
- 21 - Burgeo and La Poile
- 22 - St. George's - Port-au-Port
- 23 - Humber
- 24 - St. Barbe
- 25 - Labrador



**23.—Population of Newfoundland<sup>1</sup> showing Numerical and Percentage Increases by Census Years, 1836-1945**

Year	Population	Numerical Increase			Percentage Increase	
		Period	Per Period	Average Per Annum	Per Period	Average Per Annum
	No.		No.	No.	p.c.	p.c.
1836.....	75,094					
1857.....	124,283	1836-1857	49,194	2,342.6	65.5	3.1
1869.....	146,536	1857-1869	22,248	1,854.0	17.9	1.5
1874.....	161,374	1869-1874	14,838	2,967.6	10.1	2.0
1884.....	197,335	1874-1884	35,961	3,596.1	22.3	2.2
1891.....	202,040	1884-1891	4,705	672.1	2.4	0.3
1901.....	220,984	1891-1901	18,944	1,894.4	9.4	0.9
1911.....	242,619	1901-1911	21,635	2,163.5	9.8	1.0
1921.....	263,033	1911-1921	20,414	2,041.4	8.4	0.8
1935.....	289,588	1921-1935	26,555	1,896.8	10.1	0.7
1945.....	321,819	1935-1945	32,231	3,223.1	11.1	1.1

<sup>1</sup> Including Labrador.

Under the terms of the House of Assembly Act, 1932 (22 Geo. V., c. 7), 24 districts (exclusive of Labrador) were set up in Newfoundland. Previous to that date there were 18 districts. Populations of the 24 districts and Labrador for 1921, 1935 and 1945 are given in Table 24.

**24.—Population of Newfoundland by Districts showing Numerical and Percentage Increases, by Census Years, 1921-45**

District	1921	1935	1945	District	1921	1935	1945
	No.	No.	No.		No.	No.	No.
White Bay.....	6,542	8,721	10,745	St. John's West.....	24,791	29,565	36,435
Green Bay.....	8,401	8,257	8,606	St. John's East.....	23,010	25,321	28,821
Grand Falls.....	9,227	14,373	19,458	Ferryland.....	7,367	6,682	6,346
Twillingate.....	8,591	8,798	9,586	Placentia and St. Mary's.....	8,504	8,454	9,448
Fogo.....	9,224	9,590	10,077	Placentia West.....	9,667	9,575	9,653
Bonavista North.....	12,605	12,319	12,978	Burin.....	10,293	10,668	10,940
Bonavista South.....	12,149	11,753	11,584	Fortune Bay and Hermitage	10,540	11,334	11,445
Trinity North.....	12,701	12,766	12,808	Burgeo and La Poile.....	8,645	9,293	9,357
Trinity South.....	10,688	11,088	10,983	St. George's—Port-au-Port..	8,822	9,748	13,074
Carbonear—Bay de Verde..	15,307	13,409	12,825	Humber.....	4,745	15,166	20,560
Harbour Grace.....	8,196	7,563	7,249	St. Barbe.....	5,634	6,662	7,509
Port de Grave.....	9,991	8,750	8,278	Labrador.....	3,774	4,716	5,525
Harbour Main—Bell Island..	13,619	15,017	17,549				
				<b>Totals.....</b>	<b>263,033</b>	<b>289,588</b>	<b>321,819</b>

Populations of individual settlements of 1,000 or over for 1935 and 1945 are given in Tables 3 and 5 at pp. 149 and 150.

**25.—Population of Newfoundland by Sex, showing Percentages of Males and Females, Census Years, 1901-45**

Year	Male		Female		Total
	No.	p.c.	No.	p.c.	No.
1901.....	112,697	51.0	106,910	48.4	220,584 <sup>1</sup>
1911.....	124,632	51.4	117,987	48.6	242,619
1921.....	134,085	51.0	128,948	49.0	263,033
1935.....	148,721	51.4	140,867	48.6	289,588
1945.....	164,595	51.1	157,224	48.9	321,819

<sup>1</sup> Includes 1,377 residents of Labrador not classified as to sex.

## 26.—Population of Newfoundland by Quinquennial Age Groups, 1935 and 1945

Age Group	1935		1945		Age Group	1935		1945	
	Male	Female	Male	Female		Male	Female	Male	Female
	No.	No.	No.	No.		No.	No.	No.	No.
0-4.....	16,686	16,378	21,524	20,948	60-64.....	4,547	3,988	5,045	4,498
5-9.....	17,590	17,418	18,112	17,889	65-69.....	3,508	3,198	4,234	3,705
10-14.....	16,897	16,485	16,491	16,273	70-74.....	2,483	2,445	2,965	2,697
15-19.....	16,344	15,627	16,321	16,369	75-79.....	1,842	1,686	1,931	1,783
20-24.....	14,724	13,642	14,384	14,055	80-84.....	747	803	848	930
25-29.....	11,252	9,984	13,281	12,426	85-89.....	275	328	397	419
30-34.....	8,427	7,864	11,894	10,925	90-94.....	40	76	89	94
35-39.....	7,809	7,781	10,136	8,843	95+.....	14	17	20	23
40-44.....	6,970	6,777	7,689	7,175	Not stated.....	127	142	203	197
45-49.....	6,591	5,983	7,044	6,918	All Ages.....	148,721	140,867	164,595	157,224
50-54.....	6,419	5,565	6,359	6,108					
55-59.....	5,429	4,580	5,628	4,949					

## 27.—Marital Status of the Population of Newfoundland, Census Years, 1911-45

Year	Single		Married		Widowed		Total
	No.	p.c.	No.	p.c.	No.	p.c.	No.
1911.....	145,426	60.0	85,690	35.3	11,503	4.7	242,619
1921.....	156,041	59.3	94,428	35.9	12,564	4.9	263,033
1935.....	173,312	59.8	102,236	35.3	14,040	4.9	289,588
1945.....	185,187	57.5	122,076	37.9	14,428	4.5	321,819

<sup>1</sup> In addition there were 47 divorced persons and 81 persons whose marital status was not given.

## 28.—Racial Origins of the Population of Newfoundland, by Sex, 1945

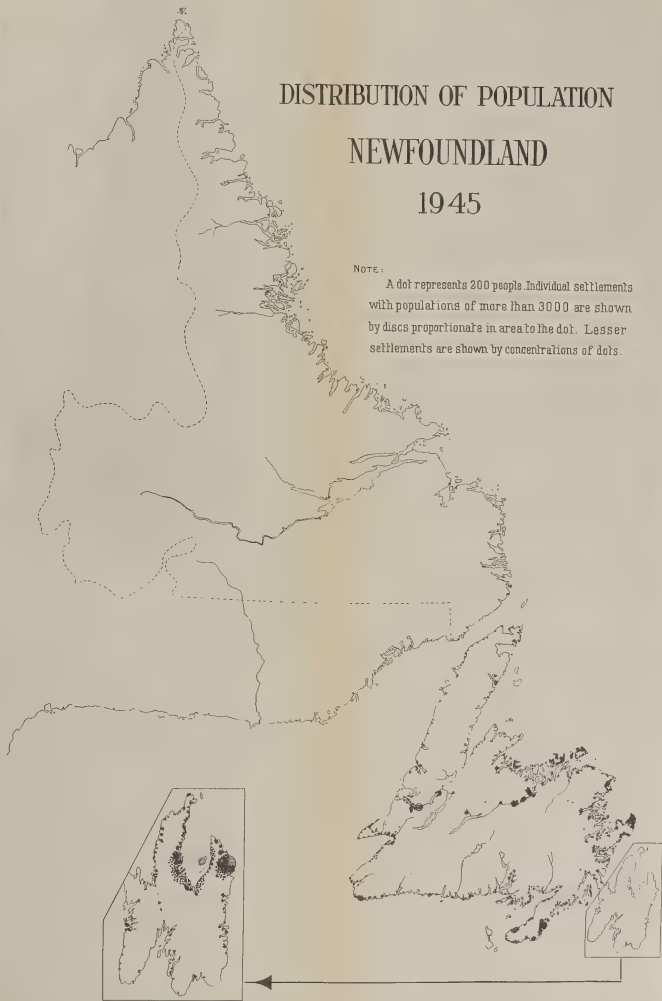
Racial Origin	Male	Female	Total
	No.	No.	No.
English.....	126,776	121,521	248,297
Irish.....	28,599	27,439	56,038
Scottish.....	2,190	2,079	4,269
Welsh.....	237	162	399
French.....	4,777	4,306	9,083
Other European.....	562	405	967
Asiatic.....	280	163	443
Eskimo.....	360	341	701
Indian and half-breed.....	503	455	958
Other and not stated.....	311	353	664
<b>Totals</b> .....	<b>164,595</b>	<b>157,224</b>	<b>321,819</b>



# DISTRIBUTION OF POPULATION NEWFOUNDLAND 1945

NOTE:

A dot represents 200 people. Individual settlements with populations of more than 3000 are shown by discs proportionate in area to the dot. Lesser settlements are shown by concentrations of dots.





### 29.—Religious Denominations of the Population of Newfoundland, Census Years, 1857-1945

Year	Church of England	Congrega- tional and Presby- terian	Pente- costal <sup>1</sup>	Roman Catholic	Salvation Army	United Church <sup>2</sup>	Other and Not Stated	Total
	No.	No.	No.	No.	No.	No.	No.	No.
1857.....	44,285	1,185	..	56,895	..	20,229	1,694	124,288
1869.....	55,184	1,312	..	61,040	..	28,990	10	146,536
1874.....	59,561	1,629	..	64,317	..	35,702	165	161,374
1884.....	69,637 <sup>3</sup>	2,263	..	75,254	..	48,767	1,414	197,335
1891.....	70,311 <sup>3</sup>	2,231	..	72,696	2,092	53,276	1,434	202,040
1901.....	73,011	2,451	..	75,989	6,594	61,388	1,551	220,984
1911.....	78,616	2,889	..	81,177	10,141	68,042	1,754	242,619
1921.....	84,665	2,894	..	86,576	13,023	74,205	1,670	263,033
1935.....	92,709	2,384	3,721	93,925	18,054	76,134	2,661	289,588
1945.....	100,878	1,548	7,558	106,006	22,571	80,094	3,164	321,819

<sup>1</sup> Shown separately for the first time in 1935.<sup>2</sup> Classed as Methodist in 1921 and previous censuses.<sup>3</sup> Includes 637 persons of Reformed Episcopal Church in 1884 and 487 in 1891.

### 30.—Gainfully Occupied of Newfoundland, 14 Years of Age or Over, by Occupation and Sex, 1945

Occupation	Male	Female	Total	Occupation	Male	Female	Total
	No.	No.	No.		No.	No.	No.
Fishing, hunting and trapping.....	31,196	2	31,198	Proprietary and managerial.....	3,457	648	4,105
Service <sup>1</sup> .....	6,292	6,952	13,244	Commercial.....	1,680	2,126	3,806
Labourers <sup>2</sup> .....	8,592	86	8,678	Mining and quarrying....	2,001	—	2,001
Transportation.....	7,628	13	7,641	Electric light and power production.....	1,026	—	1,026
Logging.....	7,262	2	7,264	Communications.....	600	257	857
Manufacturing and mechanical.....	6,238	982	7,220	Financial.....	94	2	96
Construction.....	6,465	—	6,465	Not stated.....	4,429	434	4,863
Professional.....	2,270	2,729	4,999				
Clerical.....	2,572	2,252	4,824	<b>Totals.....</b>	<b>96,000</b>	<b>16,508</b>	<b>112,508</b>
Agricultural.....	4,198	23	4,221				

<sup>1</sup> Excluding professional service.<sup>2</sup> Excluding labourers in agriculture, fishing, logging and mining.

### 31.—Dwellings and Families, Census Years, 1857-1945

Census Year	Population	Total Occupied Dwellings	Average Persons per Dwelling	Total Families	Average Persons per Family
	No.	No.	No.	No.	No.
1857.....	124,288	18,364	6.8	..	..
1869.....	146,536	23,177	6.3	..	..
1874.....	161,374	24,050	6.7	..	..
1884.....	197,335	31,476	6.3	..	..
1891.....	202,040	34,016	5.9	..	..
1901.....	220,984	39,419	5.6	..	..
1911.....	242,619	45,582	5.3	49,178	..
1921.....	263,033	48,892	5.4	53,848	4.9
1935.....	289,588	54,198	5.3	60,569	4.7
1945.....	321,819	62,418 <sup>1</sup>	5.2	68,000	4.4

<sup>1</sup> Includes hotel and institutional dwellings.

### PART III.—STATISTICS OF WORLD POPULATION

Statistics of world population, not obtainable during the war years, have again become available through the Statistical Office of the United Nations. The following data were published in the United Nations Statistical Series A, No. 5, May, 1949. Countries are listed in alphabetical order within continents, distinguishing between dependent and independent areas. This arrangement has no legal or political significance.

#### 32.—Population for each Country or Area of the World, according to the Latest Census and Latest Official Estimate

NOTE.—Areas for which no figures are available are not listed.

Country or Area	Latest Available Census		Latest Official Estimate	
	Year	Population	Year	Population
<b>Africa</b>				
<b>SELF-GOVERNING TERRITORIES—</b>				
Egypt.....	1947	19,088 <sup>1</sup>	1948	19,528
Ethiopia.....	..	..	1947	15,000
Liberia.....	..	..	1948	1,600
Union of South Africa.....	1946	11,392	1948	11,790
<b>NON-SELF-GOVERNING TERRITORIES AND DEPENDENCIES—</b>				
<b>Belgium—</b>				
Belgian Congo.....	..	..	1947	10,805
<b>France—</b>				
Algeria.....	1948	8,666	..	..
French Equatorial Africa.....	1936	3,423	1947	4,131
French Somaliland.....	1945	45	1946	45
French West Africa.....	1936	14,703	1945	15,996
Madagascar and Comoro Islands.....	1941	4,227	1946	4,295
Morocco.....	1947	7,900	..	..
Réunion.....	1946	242	..	..
Tunisia.....	1946	3,231	..	..
<b>Portugal—</b>				
Angola.....	1940	3,738	1947	4,495
Cape Verde Islands.....	1940	181	1947	168
Mozambique.....	1940	5,086	1947	6,116
Portuguese Guinea.....	1940	351	1947	422
São Tomé and Príncipe.....	1940	60	1947	57
<b>Spain—</b>				
Moroccan Protectorate (northern zone).....	1945	1,082	1947	1,120
Possessions in North Africa <sup>2</sup> .....	1940	137	1947	155
Spanish Guinea <sup>3</sup> .....	1942	171	1947	172
Spanish West Africa.....	1940	14	1948	83
<b>United Kingdom—</b>				
Basutoland.....	1946	556	..	..
Bechuanaland.....	1946	294	1947	300
British Somaliland.....	1931	345	1947	700
Gambia.....	1946	228	1947	250
Gold Coast.....	1948	3,717	..	..
Kenya.....	1931	3,041	1947	4,200
Mauritius and dependencies.....	1944	483	1948	442
Nigeria.....	1931	19,131	1947	23,745
Northern Rhodesia.....	1946	1,684	1947	1,700
Nyasaland.....	1945	2,050	1947	2,127
St. Helena <sup>4</sup> .....	1946	5	1947	5
Seychelles.....	1947	35	..	..
Sierra Leone.....	1931	1,768	1947	2,000
Southern Rhodesia.....	1946	1,764	1948	1,979
Swaziland.....	1946	185	1947	190
Uganda.....	1931	3,554	1947	4,089
Zanzibar and Pemba.....	1948	264	..	..
<b>TRUST TERRITORIES—</b>				
Cameroons (Br. Adm.).....	1931	797	1947	991
Cameroons (Fr. Adm.).....	1936	2,389	1945	2,820
Ruanda-Urundi (Belg. Adm.).....	..	..	1947	3,782
Tanganyika (Br. Adm.).....	1948	7,080	..	..
Togoland (Br. Adm.).....	1948	379	..	..
Togoland (Fr. Adm.).....	1945	919	1947	945

For footnotes, see end of table, p. 180.



### 32. Population for each Area of the World, according to the Latest Census and Latest Official Estimate—continued

Country or Area	Latest Available Census		Latest Official Estimate	
	Year	Population	Year	Population
<b>Africa—concluded</b>		'000		'000
FORMER MANDATED TERRITORY—				
South-West Africa.....	1936	318	1948	369
MILITARY GOVERNMENT, U.K.—				
Eritrea.....	1931	601	1947	1,067
Libya.....	1936	849	1947	1,120
Somalia.....	1931	1,022	1947	940
CONDOMINIUM—				
Anglo-Egyptian Sudan.....	..	..	1947	7,919
INTERNATIONAL ADMINISTRATION—				
Tangier.....	..	..	1947	104
<b>America, North</b>				
SELF-GOVERNING TERRITORIES—				
Canada <sup>6</sup> .....	1941	11,507	1949	13,545
Newfoundland.....	1945	313		
Labrador.....	1935	5		
Costa Rica.....	1927	472	1948	825
Cuba.....	1943	4,779	1947	5,130
Dominican Republic.....	1935	1,479	1948	2,214
El Salvador.....	1930	1,434	1948	2,100
Guatemala.....	1940	3,283	1948	3,754
Haiti.....	1913-19	1,631	1948	3,700
Honduras.....	1945	1,201	1948	1,260
Mexico.....	1940	19,654	1948	23,876
Nicaragua.....	1940	983	1948	1,160
Panama.....	1940	623	1948	746
United States.....	1940	131,669	1948	146,571 <sup>7</sup>
NON-SELF-GOVERNING TERRITORIES AND DEPEND- ENCIES—				
Denmark—				
Greenland.....	1945	21	1947	22
France—				
Guadaloupe and dependencies.....	1946	278	..	..
Martinique.....	1946	262	..	..
St. Pierre and Miquelon.....	1945	4	1946	4
Netherlands—				
Netherlands Antilles <sup>8</sup> .....	1948	150	..	..
United Kingdom—				
Bermudas <sup>9</sup> .....	1939	31	1947	36
British Honduras.....	1946	59	1947	62
British West Indies <sup>10</sup> .....	1946 <sup>11</sup>	2,418	1947	2,561
United States—				
Alaska.....	1939	73	1945	81
Panama Canal Zone.....	1940	52	1947	46 <sup>9</sup>
Puerto Rico.....	1940	1,869	1947	2,149 <sup>12</sup>
Virgin Islands (U.S.) <sup>13</sup> .....	1940	25	1947	27 <sup>12</sup>
<b>America, South</b>				
SELF-GOVERNING TERRITORIES—				
Argentina.....	1947	16,109		
Bolivia.....	1900	1,816	1948	3,922
Brazil.....	1940	41,236	1948	48,450
Chile.....	1940	5,024	1948	5,670
Colombia.....	1938	8,702	1948	10,777
Ecuador.....	..	..	1948	3,362 <sup>14</sup>
Paraguay.....	1936	932	1948	1,270
Peru.....	1940	7,023	1948	8,061
Uruguay.....	1908	1,043	1947	2,340
Venezuela <sup>15</sup> .....	1941	3,851	1948	4,490
NON-SELF-GOVERNING TERRITORIES AND DEPEND- ENCIES—				
France—				
French Guiana <sup>16</sup> .....	1946	29	..	..
Netherlands—				
Surinam <sup>17</sup> .....	1921	108	1947	182
United Kingdom—				
British Guiana.....	1946	376	1947	391 <sup>18</sup>
Falkland Islands and dependencies.....	1946	2	1947	2

### 32.—Population for each Area of the World, according to the Latest Census and Latest Official Estimate—continued

Area	Latest Available Census		Latest Official Estimate	
	Year	Population	Year	Population
		'000		'000
<b>Asia (exclusive of U.S.S.R.)</b>				
<b>SELF-GOVERNING TERRITORIES—</b>				
Afghanistan.....	..	..	1947	12,000
Bahrein.....	1941	90	1947	105
Burma.....	1941	16,824	1946	17,000
Ceylon <sup>19</sup> and Maldiv Islands.....	1946	6,739	1948	7,146 <sup>20</sup>
China <sup>21</sup> .....	..	..	1948	463,493
India (Dominion of) <sup>22</sup> .....	1941	318,920	1948	342,114
Iran.....	1939-1944	16,550	1946	17,000
Iraq.....	..	..	1947	4,800
Israel <sup>23</sup> .....	..	..	1948	713
Japan.....	1948	80,217	..	..
Korea.....	1944	25,120	1946	27,200
Lebanon.....	1942	1,116	1947	1,186
Mongolian People's Republic.....	..	..	1944	2,078
Pakistan.....	1941	70,077	1948	73,321
Philippines.....	1939	16,000	1948	19,964
Saudi Arabia.....	..	..	1946	6,000
Siam.....	1947	17,317	1948	17,666
Syria <sup>24</sup> .....	1938	2,930 <sup>25</sup>	1946	3,662 <sup>26</sup>
Hashemite Jordan Kingdom.....	..	..	1929	306
Turkey in Asia (incl. Hatay).....	1945	17,294	1948	19,500 <sup>27</sup>
Yemen.....	..	..	1947	7,000
<b>NON-SELF-GOVERNING TERRITORIES AND DEPEND- ENCIES—</b>				
<b>France—</b>				
French India.....	1939	305	1946	346
Indo-China.....	1936	23,030	1946	27,030
<b>Netherlands—</b>				
Indonesia <sup>28</sup> .....	1930	60,727	1948	76,360
<b>Portugal—</b>				
Macau.....	1940	375	..	..
Portuguese India.....	1940	624	1947	657
Portuguese Timor.....	1936	464	1947	433 <sup>29</sup>
<b>United Kingdom—</b>				
Aden Colony <sup>30</sup> .....	1946	82	..	..
Aden Protectorate.....	..	..	1947	650
British Borneo.....	..	..	1947	873
Cyprus.....	1946	450	1948	457
Federation of Malaya <sup>31</sup> .....	1947	4,908	1948	4,957
Hong Kong.....	1931	850	1948	1,800
Singapore <sup>32</sup> .....	1947	941	1948	964
<b>FORMER MANDATED TERRITORY, U.K.—</b>				
Palestine <sup>33</sup> .....	1931	1,036	1946	1,912
<b>MILITARY GOVERNMENT, U.S.—</b>				
Ryukyu Islands.....	1947	869	..	..
<b>Europe (exclusive of U.S.S.R.)</b>				
<b>SELF-GOVERNING TERRITORIES—</b>				
Albania.....	1930	1,003	1942	1,128
Andorra.....	..	..	1929	5
Austria.....	1948	6,953 <sup>34</sup>	..	..
Belgium.....	1947	8,513	..	..
Bulgaria <sup>35</sup> .....	1946	7,022	1947	7,048
Czechoslovakia.....	1947	12,164	1948	12,338
Denmark and Faroe Islands.....	1945	4,074	1947-48	4,220 <sup>36</sup>
Finland.....	1940	3,711	1948	3,958
France.....	1946	40,503 <sup>37</sup>	1948	41,500
Germany <sup>38</sup> .....	1946	65,899	..	..
Greece.....	1940	7,460	1948	7,780
Hungary.....	1948	9,201	1947	9,383 <sup>39</sup>
Iceland.....	1940	121	1947	134
Ireland.....	1946	2,953	1948	3,023
Italy.....	1936	42,445	1948	45,728
Liechtenstein.....	1941	11	..	..
Luxembourg.....	1947	291	1948	292
Monaco.....	1946	19	1948	21

### 32.—Population for each Area of the World, according to the Latest Census and Latest Official Estimate—continued

Area	Latest Available Census		Latest Official Estimate	
	Year	Population	Year	Population
		'000		'000
<b>Europe (exclusive of U.S.S.R.)—concluded</b>				
<b>SELF-GOVERNING TERRITORIES—concluded</b>				
Netherlands <sup>40</sup> .....	1930	7,936	1949	9,872
Norway.....	1946	3,123	1948	3,198
Poland <sup>41</sup> .....	1946	23,930	1947	23,781
Portugal (incl. Azores-Madeira).....	1940	7,722	1948	8,402
Roumania <sup>42</sup> .....	1948	15,873	1947	15,865
San Marino.....	..	..	1939	15
Spain (incl. Balearic and Canary Islands).....	1940	25,878	1948	27,761
Sweden.....	1945	6,674	1947	6,842
Switzerland.....	1941	4,266	1948	4,614
Turkey (in Europe).....	1945	1,497	1948	19,500 <sup>27</sup>
United Kingdom.....	1931	46,038 <sup>43</sup>	1948	50,033 <sup>40</sup>
England and Wales.....	1931	39,952	1948	43,502 <sup>40</sup>
Northern Ireland.....	1937	1,280	1948	1,362 <sup>40</sup>
Scotland.....	1931	4,843	1948	5,169 <sup>40</sup>
Vatican City.....	1948	1	..	..
Yugoslavia <sup>44</sup> .....	1948	15,752	..	..
<b>NON-SELF-GOVERNING TERRITORIES AND DEPENDENCIES—</b>				
Norway—				
Svalbard.....	1946	1	1947	1
United Kingdom—				
Channel Islands.....	1945	79	1947	96
Gibraltar <sup>9</sup> .....	1931	16	1947	21
Isle of Man.....	1931	49	1947	51
Malta and Gozo <sup>9</sup> .....	1948	306	1947	304
<b>INTERNATIONAL ADMINISTRATION—</b>				
Trieste (Free Territory).....	1936	345	1947	293 <sup>45</sup>
<b>Oceania</b>				
<b>SELF-GOVERNING TERRITORIES—</b>				
Australia (excl. aborigines).....	1947	7,579	1948	7,710
New Zealand <sup>46</sup> .....	1945	1,702	1948	1,840
<b>NON-SELF-GOVERNING TERRITORIES AND DEPENDENCIES—</b>				
Australia—				
Norfolk.....	1947	1	..	..
Papua.....	1947	347	1947	300
France—				
French Oceania.....	1946	56	..	..
New Caledonia and dependencies.....	1936	60	1946	49
New Zealand—				
Campbell, Cook, Kermadec, Niue and Tokelau Islands.....	1945	20	1947	21
United Kingdom—				
British Solomon Islands.....	1931	94	1947	95
Fiji Islands.....	1946	260	1947	269
Gilbert and Ellice <sup>48</sup> .....	1947	36	..	..
Tonga.....	1939	34	1948	44
United States—				
American Samoa.....	1940	13	1947	18
Guam.....	1940	22	1947	61 <sup>49</sup>
Hawaii.....	1940	423	1947	544 <sup>50</sup>
<b>TRUST TERRITORIES—</b>				
Nauru (Aust. Adm.).....	1947	3	..	..
New Guinea (Aust. Adm.).....	1947	647	1947	900
Pacific Islands (U.S. Adm.).....	1940	131	1948	51
Western Samoa (N.Z. Adm.).....	1945	68	1948	73
<b>CONDOMINIUM—</b>				
New Hebrides (Anglo-French).....	..	..	1946	49

### 32. Population for each Area of the World, according to the Latest Census and Latest Official Estimate—concluded

Area	Latest Available Census		Latest Official Estimate	
	Year	Population	Year	Population
		'000		'000
<b>U.S.S.R.</b>				
Union of Soviet Socialist Republics.....	1939	170,467	1946	193,000
Byelorussian S.S.R.....	1939	5,568	..	..
Ukrainian S.S.R.....	1939	30,960	..	..
<b>Recapitulation</b>				1947 <sup>51</sup>
				'000
Africa.....				187,402
America, North.....				206,410
America, South.....				103,559
Asia (excl. U.S.S.R.).....				1,237,874
Europe (excl. U.S.S.R.).....				386,419
Oceania.....				11,908
Union of Soviet Socialist Republics.....				193,000 <sup>52</sup>
<b>World Total</b> .....				<b>2,326,572</b>

- <sup>1</sup> Includes 49,320 nomad Arabs. <sup>2</sup> Includes Alhucemas, Ceuta, Chafarinas, Melilla and Peñon de Vélez de la Gomera. <sup>3</sup> Includes Annobon, Corisco, Elobey, Fernando Po and Rio Muni. <sup>4</sup> Spaniards only. <sup>5</sup> Includes Ascension Island and Tristan da Cunha. <sup>6</sup> Resident population, including armed forces, irrespective of location. <sup>7</sup> Includes armed forces, irrespective of location, in excess of those "normally" overseas in 1940. <sup>8</sup> Includes Aruba, Bonaire, Curaçao, Saba, St. Eustatius and St. Martin. <sup>9</sup> Civilians only. <sup>10</sup> Includes Anguilla. <sup>11</sup> Censuses for the Bahamas, Jamaica, Cayman Islands and Turks and Caicos Island were taken in 1943. <sup>12</sup> Includes armed forces stationed in area. <sup>13</sup> Includes St. Croix, St. John and St. Thomas. <sup>14</sup> Excludes provinces of Orientales de Napo Pastaza, Santiago, Zamora and Archipiélago de Colon. <sup>15</sup> Excludes tribal Indians estimated at 100,600 in 1941. <sup>16</sup> Includes military and penal population numbering 3,007. <sup>17</sup> Excludes Bushnegroes and Aboriginal Indians estimated at 11,000 in 1921 and 25,700 in 1947. <sup>18</sup> Excludes Amerindian population of remote districts estimated as 6,023 at Census of 1946. <sup>19</sup> Excludes military and shipping personnel. <sup>20</sup> Excludes Maldivé Islands. <sup>21</sup> Includes 22 Provinces plus Formosa, Jehol, Manchuria, Sinkiang and Tibet. <sup>22</sup> Includes figures for princely states of Hyderabad and Kashmir. <sup>23</sup> Jewish population only. <sup>24</sup> Includes settled population in Jebel Druze, Latakia, and Syria. <sup>25</sup> Includes an estimated 215,000 Bedouins. <sup>26</sup> Includes an estimated 655,625 Bedouins. <sup>27</sup> All Turkey in Asia and Europe. <sup>28</sup> Includes Netherlands New Guinea. <sup>29</sup> Native population only. <sup>30</sup> Civilian population of Aden Settlement, Kuria Maria Islands and Perim Island. <sup>31</sup> Southern part of Malay peninsula, not including Singapore. <sup>32</sup> Includes Christmas and Cocos Islands. <sup>33</sup> Includes Bedouins. <sup>34</sup> Based on rationing: latest regular Census, Mar. 22, 1934. <sup>35</sup> Territory according to Treaty of Craiova, i.e., including Southern Dobrudja. <sup>36</sup> Excludes displaced persons numbering 196,518 in August, 1946, and 60,434 in February, 1948. <sup>37</sup> Excludes enemy prisoners of war and 310,000 military and naval personnel, convicts and exiles outside France on Mar. 10, 1946. <sup>38</sup> Includes prisoners of war, displaced persons, refugees, etc., numbering 408,400 in British zone, and 415,000 in United States zone during 1946. <sup>39</sup> Includes three villages of Pozsony, ceded to Czechoslovakia, Feb. 10, 1947, of which population was 3,379 at the 1941 Census. <sup>40</sup> Includes armed forces and merchant seamen irrespective of location: excludes prisoners of war. <sup>41</sup> Within boundaries established at Potsdam and in accordance with Treaty with Soviet Union signed Aug. 17, 1945. <sup>42</sup> Excludes Bessarabia, Northern Bukovina and Southern Dobrudja. <sup>43</sup> Includes an estimate for Northern Ireland. <sup>44</sup> New territory, including part of Venezia Giulia and Zara. <sup>45</sup> Anglo-American Zone of Free Territory only. <sup>46</sup> Excludes armed forces overseas, allied armed forces in New Zealand and prisoners of war. <sup>47</sup> Excludes indigenous population. <sup>48</sup> Includes Phoenix Island group. <sup>49</sup> Includes 36,388 non-Guamanians, personnel of Army, Navy, Marines, etc. <sup>50</sup> Civilians plus armed forces stationed in area. <sup>51</sup> Mid-year estimate. <sup>52</sup> 1946 official estimate.



# CHAPTER V.—IMMIGRATION AND EMIGRATION\*

## CONSPECTUS

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NOTE.—*The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.*

## Section 1.—Immigration

The history of immigration to Canada is given briefly at pp. 172-173 of the 1948-49 Year Book.

**The Immigration Act and Regulations.**—Immigration to Canada is controlled by the terms of the Immigration Act and by the Regulations and Orders made under authority of the provisions of that Act. The Act itself is purposely flexible and does not define the classes or categories of persons who are admissible to Canada as immigrants. Such definitions are given in Regulations made under the Act by Order in Council. On the other hand, the Act does define certain prohibited classes, including persons suffering from some forms of mental or physical ailments, criminals, advocates of the use of force or violence against organized government, spies, illiterates and others. Persons within these prohibited classes cannot be admitted to Canada as immigrants except by Act of Parliament.

Under the Immigration Act and Regulations as they stand to-day, the categories of persons admissible to Canada as immigrants may be readily summarized.

The first and most-favoured group includes British subjects from the United Kingdom of Great Britain and Northern Ireland, New Zealand, Australia and South Africa; citizens of Ireland; citizens of the United States; and French citizens born in France and entering Canada directly from that country. Such persons are admissible if they can satisfy the immigration officers at the port of entry that they are in good physical and mental health; they are of good character; and they are not likely to become a public charge. The legal barriers against the admission of these favoured groups have been lowered as far as it is safe for any country to go in dealing with prospective residents.

The second general category of admissible persons consists of close relatives of Canadian citizens or of persons legally admitted to and domiciled in Canada. The relationships covered by this regulation are:—

- (1) Husband or wife;
- (2) Father or mother;
- (3) Son, daughter, brother or sister together with husband or wife and unmarried children;
- (4) Orphan nephews or nieces under 21 years of age (the term "orphan" used here means a child bereaved of both parents);
- (5) A prospective husband or wife entering Canada to marry a legal resident; provided that in either case the intended husband is able to support his intended wife.

\* Revised under the direction of A. L. Jolliffe, Director of Immigration, Department of Mines and Resources.

The third category of admissible persons is comprised of those citizens of non-Asiatic countries who are coming to Canada as agriculturists and who have sufficient means and the intention to farm in Canada, either by themselves or with the assistance of relatives; farm labourers coming to engage in assured farm employment; and miners and woods workers coming to assured employment in the mining or forest industries.

In 1949 the only persons of Asiatic racial origin who are admissible to Canada are the wives, and unmarried children under 18 years of age, of Canadian citizens.

**Administration.**—The administration of the Immigration Act and Regulations is the function of the Immigration Branch of the Department of Mines and Resources.

The Immigration Branch is composed of two units. The Canadian Service maintains staffs at each of the 269 ports of entry along the Canada-United States Border and on the Atlantic and Pacific seaboards where the admissibility is established of every person who legally enters Canada. Inland offices are also located at strategic points across the country where investigation of applications for the admission of immigrants by Canadian residents is conducted.

The Overseas Service maintains four offices in the United Kingdom and one in Ireland. In the United Kingdom, Canadian medical officers located at London, Glasgow and Liverpool and a roster of over 500 approved British doctors carry out the medical examinations of intending immigrants. In Commonwealth countries in which immigration offices have not been established, intending immigrants are dealt with by officials in the chanceries of the Canadian High Commissioners. A number of offices are also located on the Continent of Europe and facilities for the examination of immigrants are available at all Canadian diplomatic and consular offices throughout the world. This system provides for the preliminary examination of immigrants before they leave their homelands.

An X-ray examination of the chest is required for all immigrants from countries where the incidence of tuberculosis per capita is higher than it is in Canada. This excluded only citizens of the United States and New Zealand in 1949.

A primary objective of administration is to assist immigrants to become quickly and satisfactorily settled in the Canadian community. In the case of group movements the Canadian Government and the International Refugee Organization both assist in preparing the immigrant for his new life in Canada prior to arrival. Upon arrival these immigrants are taken to the localities in which employment or settlement has been arranged for them and from this point they, and of course all those who come in on their own, become primarily the responsibility of the provincial rather than the Federal authorities. However, through the work of the Settlement Service of the Immigration Branch, the National Employment Service of the Department of Labour and the Citizenship Branch of the Department of the Secretary of State, the Federal Government continues its interest in them. Liaison is maintained between the Federal Government and the provincial authorities and private organizations by the Citizenship Branch with a view to co-ordinating the efforts in this field, filling gaps and eliminating duplication.

Literature, dealing with such matters as basic English, Canadian Government, the acquisition of citizenship, and so on, is made available and in certain parts of the country special plans have been initiated for training teachers in citizenship classes so that they will be competent to handle immigrant instruction.

**Canadian Immigration Policy as at June, 1949.**—The policy in relation to immigration is to ensure the careful selection and permanent settlement in Canada of such numbers of immigrants as can be absorbed advantageously in the national economy. The figure that represents absorptive capacity will clearly vary from year to year in response to economic conditions. In the past Canada has received many millions of immigrants but at the same time has lost substantial numbers to the United States—a large proportion of whom were young people born in Canada and others who had benefited by education or training received in Canada.

As a result of present policy total immigration to Canada, which sank to less than 11,300 for a single year during the depression (1935) and to less than 7,600 for one year (1942) during the War, has increased since the end of hostilities to 71,719 for 1946, 64,127 for 1947, and 125,414 for 1948. Figures for the first six months of 1949 will possibly reach a total of 50,000.

Since the conclusion of the Second World War in 1945 special steps have been taken to broaden the categories of special groups of immigrants. Individuals in such groups are selected carefully on the basis of their suitability to Canadian conditions. The following paragraphs deal with the main groups under their respective headings.

*Displaced Persons.*—By successive Orders in Council, permission has been granted for the admission of 40,000 displaced persons who would otherwise have been inadmissible. This figure does not include displaced persons who are admissible as relatives of persons already resident in Canada, nor does it include the dependents of displaced persons who, after becoming settled in this country, may then apply for the admission of their relatives. It is quite possible that when the total number of admissible relatives and dependents is added to the 40,000, this country's contribution to the settlement problem will involve an eventual movement of over 100,000 displaced persons.

Canada has the distinction of being not only the first non-European country to take positive action toward the solution of the displaced persons problem but of having admitted, up to Mar. 31, 1949, more persons in this category than all other non-European countries put together. The total number of displaced persons entering Canada up to that date was 64,860.

Steps were taken to ensure that those admitted were types that would be useful in the Canadian economy and would make good Canadian citizens. The Government's decision, while based in part on altruistic motives, was based also on the determination that the movement of displaced persons should constitute a real contribution toward the development of Canada. The machinery set up to carry out this policy includes an Immigration-Labour Committee (on which the Departments of Mines and Resources, Labour, External Affairs and National Health and Welfare are represented) which has the responsibility of assessing labour requirements in Canada and of defining the types of displaced persons that should be admitted to meet established needs. Applications for labour from industry are examined by this Committee with a view to ensuring: (1) that the employer or employers concerned are in a position to give at least one year's employment to any D.P.'s that may be brought in; (2) that they are prepared to pay the prevailing wage rate for the type of labour concerned; (3) that they are able to provide housing for the D.P.'s on arrival.

The Canadian Christian Council for Resettlement of Refugees assists in the movement to Canada of certain classes of displaced persons. The Council was formed in June, 1947, to aid in locating and processing overseas approved immigrants



who are displaced persons in occupied territory but who do not come within the mandate of the International Refugee Organization. It is a voluntary organization consisting of the following members: the Catholic Immigrant Aid Society, the Canadian Mennonite Board of Colonization, the German Baptist Colonization and Immigration Society, the Canadian Lutheran World Relief, the Sudeten Committee and the Latvian Relief Fund of Canada. The work of the council is handled in exactly the same manner as for approved immigrants coming within the mandate of the International Refugee Organization and almost all the immigrants concerned are close relatives of residents of Canada.

The racial distribution of displaced persons admitted up to Mar. 31, 1949, was:—

Polish.....	14,620	Roumanian.....	537
Ruthenian.....	13,598	Czech.....	449
Hebrew.....	8,479	Slovak.....	116
Lithuanian.....	6,340	Austrian.....	83
German.....	4,222	Bulgarian.....	47
Latvian.....	4,208	Finnish.....	26
Netherland.....	3,650	Italian.....	24
Estonian.....	2,709	Albanian.....	17
Yugoslavic.....	1,580	Greek.....	16
Russian.....	1,576	Swedish.....	10
Serbian.....	986	Other.....	37
Magyar.....	983		
Croatian.....	547		
		TOTAL.....	64,860

*Netherlands Farm Families.*—Arrangements were made with the Netherlands authorities whereby Dutch agriculturists whose lands were flooded as a result of military operations during the Second World War might come to settle in Canada. These immigrants, who are not farm labourers but farm settlers with financial resources, migrate in family groups and those who have come have proven eminently successful in adapting themselves to Canadian agricultural methods. The movement involved about 11,000 persons between June, 1947 and Mar. 31, 1949.

*Polish Ex-Service Men.*—Under a special plan, authority was granted for the admission of Polish ex-service men to assist farmers in urgent need of help. These Poles agreed to remain in agricultural employment for a period of two years. Their employers, in turn, agreed to provide employment at prevailing rates of pay and to supply living accommodation. Under this plan, 4,327 men were brought to Canada up to Mar. 31, 1949.

*Immigrants from Malta.*—By arrangement with the Government of Malta, Canada authorized the admission of 500 Maltese with their dependents. The placement of the heads of families in Canada is to be arranged by the Department of Labour and the dependents will join the heads of families when they are in a position to receive and care for them.

*European Orphans.*—At the request of the Catholic Immigrant Aid Society and the Canadian Jewish Congress, the Canadian Government authorized the admission of 1,000 Catholic and 1,200 Jewish war orphans.

### Subsection 1.—Immigration Statistics

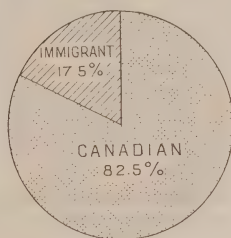
Table 1 presents statistics of immigration to Canada from 1910 to 1948. For more recent years analyses, including place of last permanent residence, port of arrival, sex, age, birthplace, racial origin, nationality, destination and occupation, will be found in Tables 2 to 9. Tables 12 and 13 deal with Canadians returning from the United States and Newfoundland and Table 14 shows oriental immigration.



# TOTAL IMMIGRANT ARRIVALS INTO CANADA FOR PROSPECTIVE SETTLEMENT

1930 — 48

PERCENTAGE  
OF  
IMMIGRANT POPULATION  
AND  
CANADIAN BORN  
TO  
TOTAL POPULATION  
CANADA, 1941

THOUSANDS  
OF  
IMMIGRANTS

140 —

120 —

100 —

80 —

60 —

40 —

20 —

0 —

1930

1935

1940

1945

48

DEPRESSION OF THE 30'S

WAR AND IMMEDIATE  
POST-WAR BOOM

## 1.—Immigrant Arrivals, 1910-48

NOTE.—Figures for 1852-93 are given at p. 153 of the 1942 Year Book and for 1894-1909 at p. 175 of the 1948-49 edition.

Year	Arrivals	Year	Arrivals	Year	Arrivals	Year	Arrivals	Year	Arrivals
	No.		No.		No.		No.		No.
1910.....	286,839	1918....	41,845	1926....	135,982	1934.....	12,476	1942.....	7,576
1911.....	331,288	1919....	107,668	1927.....	158,886	1935.....	11,277	1943.....	8,504
1912.....	375,756	1920....	138,824	1928.....	166,783	1936.....	11,643	1944.....	12,801
1913.....	400,870	1921....	91,728	1929.....	164,993	1937.....	15,101	1945.....	22,722
1914.....	450,484	1922....	64,224	1930.....	104,806	1938.....	17,244	1946.....	71,719
1915.....	36,665	1923....	133,729	1931.....	27,530	1939.....	16,994	1947.....	64,127
1916.....	55,914	1924....	124,164	1932.....	20,591	1940.....	11,324	1948.....	125,414
1917.....	72,910	1925....	84,907	1933.....	14,382	1941.....	9,329		

At this place, in previous editions of the Year Book, figures purporting to show immigrant arrivals from the United Kingdom, the United States and other countries, have been given. The series went back to 1881 but, unfortunately, has latterly been shown to be unsound. The newer series, given below, showing immigrant admissions by place of last permanent residence goes back only to 1939.

## 2.—Immigrant Admissions, by Country of Last Permanent Residence, 1939-48

Country.	1939	1940	1941	1942	1943
British Isles—	No.	No.	No.	No.	No.
England.....	2,328	1,297	353	556	916
Scotland.....	500	136	66	93	163
Wales.....	42	11	12	7	18
Northern Ireland.....	141	22	4	7	19
Ireland.....	79	20	8	11	17
Lesser British Isles.....	8	23	—	—	—
Totals, British Isles.....	3,098	1,509	443	674	1,133
United States.....	5,654	7,135	6,594	5,100	4,401
Other.....	8,242	2,680	2,292	1,802	2,970
<b>Total Immigration.....</b>	<b>16,994</b>	<b>11,324</b>	<b>9,329</b>	<b>7,576</b>	<b>8,504</b>
	1944	1945	1946	1947	1948
British Isles—	No.	No.	No.	No.	No.
England.....	4,106	9,343	40,812	27,261	30,450
Scotland.....	467	1,240	7,954	6,668	9,886
Wales.....	55	147	1,073	602	683
Northern Ireland.....	17	60	643	955	1,576
Ireland.....	33	47	468	406	1,044
Lesser British Isles.....	6	16	34	65	85
Totals, British Isles.....	4,684	10,853	50,984	35,957	43,724
United States.....	4,510	6,394	11,474	9,444	7,393
Other.....	3,607	5,475	9,261	18,726	74,297
<b>Total Immigration.....</b>	<b>12,801</b>	<b>22,722</b>	<b>71,719</b>	<b>64,127</b>	<b>125,414</b>

## 3.—Immigrant Arrivals at Airports and Ocean Ports, 1946-48

Port of Arrival	1946		1947		1948	
	Air-port	Ocean Port	Air-port	Ocean Port	Air-port	Ocean Port
	No.	No.	No.	No.	No.	No.
Boston, Mass., U.S.A.....	6	77	46	99	14	101
Dartmouth, N.S.....	—	—	29	—	40	—
Dorval, Que.....	518	—	4,463	—	11,183	—
Ellis Island, N.Y., U.S.A.....	1,444	3,118	4,695	9,252	869	12,473
Halifax, N.S.....	3	48,164	—	18,649	11	60,479
Louisburg, N.S.....	—	18	—	44	1	59
Malton, Ont.....	—	—	5,598	—	2,304	—
Moncton, N.B.....	62	—	90	—	56	1
Montreal, Que.....	3	843	7	1,827	—	709
Newcastle, N.B.....	—	13	—	9	—	2
New Westminster, B.C.....	—	19	1	9	—	6
North Sydney, N.S.....	14	1,847	7	2,381	2	2,056
Philadelphia, Pa., U.S.A.....	7	470	4	55	—	36
Pictou, N.S.....	—	—	—	21	—	2
Port Alfred, Que.....	—	8	—	39	9	61
Quebec, Que.....	—	1,040	—	2,250	2	22,826
Sorel, Que.....	—	3	—	27	—	8
Saint John, N.B.....	—	377	1	506	1	636
Sydney, N.S.....	362	101	2,147	121	1,773	58
Three Rivers, Que.....	—	23	—	4	—	5
United States ports <sup>1</sup> .....	279	697	589	891	418	1,018
Vancouver, B.C.....	14	327	53	434	56	433
Victoria, B.C.....	—	14	—	122	—	80
Others <sup>2</sup> .....	6	15	6	3	3	19
Not given.....	11	347	3	205	—	223
<b>Totals.....</b>	<b>2,729</b>	<b>57,531</b>	<b>17,739</b>	<b>36,948</b>	<b>16,742</b>	<b>101,291</b>

<sup>1</sup> Other than Boston, Ellis Island and Philadelphia.

<sup>2</sup> Includes Charlottetown, P.E.I., Windsor, N.S., Dalhousie, N.S., Yarmouth, N.S.; Bathurst, N.B., Chatham, N.B.; Point du Chene, Que., Rimouski, Que., Boucherville, Que.; Uplands, Ont., and Alberni, B.C.

**Sex, Age and Marital Status.**—Of the total immigrants 18 years of age or over entering Canada in 1948, 54.0 p.c. were males and 46.0 p.c. females. These percentages compare with 52.4 and 47.6, respectively, for 1947. Previous to that year, adult female immigrants outnumbered adult male immigrants almost consistently since 1931, particularly in 1945 and 1946 when the wives of Canadian service men were coming in. Before 1931 males normally exceeded females. In 1948 adult male arrivals showed an increase of 25,705 or 9.4 p.c. over 1947, and adult female arrivals an increase of 20,404 or 8.2 p.c.

Throughout the years, the male and female distribution of persons under 18 years of age has been fairly even. In 1948, of the 27,237 immigrants in this class, 84.7 p.c. were under 15 years as compared with 83.5 p.c. of the 12,059 such immigrants in 1947.

Of the total male immigrants in 1948, 38.5 p.c. were married and 59.3 p.c. single; the percentages for female immigrants were 42.2 and 48.9, respectively.

#### 4.—Sex Distribution of Immigrants as Adult Males, Adult Females, and Children, 1939-48

NOTE.—Figures for the years 1930-38 will be found at p. 183 of the 1946 Year Book.

Year	Adult Males	Adult Females	Under 18 Years		Total
			Males	Females	
	No.	No.	No.	No.	No.
1939.....	4,866	6,820	2,815	2,493	16,994
1940.....	3,939	4,517	1,432	1,436	11,324
1941.....	3,851	3,489	940	1,049	9,329
1942.....	2,280	3,429	928	939	7,576
1943.....	2,113	4,064	1,177	1,150	8,504
1944.....	2,391	6,253	2,103	2,054	12,801
1945.....	4,259	11,620	3,442	3,401	22,722
1946.....	9,934	40,818	10,549	10,418	71,719
1947.....	27,281	24,787	6,154	5,905	64,127
1948.....	52,986	45,191	14,104	13,133	125,414

#### 5.—Sex and Marital Status of Immigrant Arrivals, by Age Groups, 1947 and 1948

Year and Age Group	Males					Females				
	Single	Married	Wi-dowed	Di-vorced	Total	Single	Married	Wi-dowed	Di-vorced	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
<b>1947</b>										
0-14 years.....	5,162	—	—	—	5,162	4,907	—	—	—	4,907
15-19 ".....	1,599	18	—	1	1,618	1,946	369	3	—	2,318
20-24 ".....	4,686	1,021	1	4	5,712	2,977	2,189	54	30	5,250
25-29 ".....	3,685	2,698	20	29	6,432	1,659	2,498	101	161	4,419
30-39 ".....	3,055	4,817	70	96	8,038	1,423	3,639	227	278	5,567
40-49 ".....	444	3,037	98	43	3,622	669	2,638	384	199	3,890
50 years or over..	209	2,208	399	35	2,851	531	1,829	1,890	91	4,341
<b>Totals, 1947....</b>	<b>18,840</b>	<b>13,799</b>	<b>588</b>	<b>208</b>	<b>33,435</b>	<b>14,112</b>	<b>13,162</b>	<b>2,659</b>	<b>759</b>	<b>30,692</b>
<b>1948</b>										
0-14 years.....	11,862	—	—	—	11,862	11,211	—	—	—	11,211
15-19 ".....	4,323	23	—	—	4,346	3,914	343	1	4	4,262
20-24 ".....	8,490	1,460	3	7	9,960	6,017	3,384	57	30	9,488
25-29 ".....	7,198	4,805	27	48	12,078	3,551	5,187	232	168	9,138
30-39 ".....	6,402	9,778	222	139	16,541	2,405	7,722	632	295	11,054
40-49 ".....	1,225	6,327	301	105	7,958	884	5,014	812	219	6,929
50 years or over..	270	3,444	570	61	4,345	548	2,945	2,612	137	6,242
<b>Totals, 1948....</b>	<b>39,770</b>	<b>25,837</b>	<b>1,123</b>	<b>360</b>	<b>67,090</b>	<b>28,530</b>	<b>24,595</b>	<b>4,346</b>	<b>853</b>	<b>58,324</b>

**Birthplaces.**—While the number of British-born immigrants to Canada in 1948 showed an increase over 1947, they accounted for a much smaller proportion of the total, being only 39.5 p.c. as compared with 64.6 p.c. in the previous year. A tremendous increase was shown in the number of immigrants born in Continental European countries, which as a whole accounted for 55.5 p.c. of the total in 1948 compared with 23.4 p.c. in 1947. In 1948, 39.9 p.c. of the European-born immigrants were born in Poland, 18.8 p.c. in the Union of Soviet Socialist Republics, Yugoslavia and Lithuania, 10.0 p.c. in the Netherlands and 4.6 p.c. in Italy. The number of immigrants born in the United States declined in 1947 and again in 1948, accounting for, in the latter year, only 4.4 p.c. of the total.

#### 6.—Birthplaces of Immigrant Arrivals, 1946-48

NOTE.—Figures for 1942-45 are given at p. 178 of the 1948-49 Year Book.

Country of Birth	1946	1947	1948	Country of Birth	1946	1947	1948
	No.	No.	No.		No.	No.	No.
<b>British Commonwealth</b>				<b>Continent of Asia—</b>			
British Isles—				China.....	118	137	207
England.....	38,991	24,832	28,046	Japan.....	14	34	16
Ireland.....	983	1,049	1,592	Other.....	85	146	33
Northern Ireland.....	761	1,183	1,850				
Scotland.....	8,473	7,350	10,354	<b>Continental Europe—</b>			
Wales.....	1,455	1,060	1,107	Austria.....	302	150	919
Lesser Isles.....	77	80	90	Belgium.....	817	926	1,174
Other Commonwealth—				Czechoslovakia.....	221	383	1,998
Africa (British).....	129	113	114	France.....	310	404	1,068
Australia.....	250	344	446	Germany.....	758	445	2,892
Canada.....	1,354	1,214	976	Greece.....	53	652	701
India.....	353	598	547	Hungary.....	123	167	1,509
Newfoundland.....	2,580	2,949	2,974	Italy.....	98	131	3,204
New Zealand.....	99	195	239	Latvia.....	8	451	2,959
West Indies (British)...	391	323	70	Lithuania.....	6	1,235	4,110
Other.....	151	165	1,182	Netherlands.....	2,191	2,718	6,940
<b>Continent of Africa</b> ....	53	47	30	Norway.....	174	177	328
<b>Continent of North America—</b>				Poland.....	688	5,169	27,792
Central America.....	23	16	14	Roumania.....	41	135	1,516
Mexico.....	28	24	19	Switzerland.....	53	151	334
United States.....	8,958	7,075	5,576	Union of Soviet Social-			
Other.....	46	37	30	ist Republics.....	133	870	5,503
<b>Continent of South America—</b>				Yugoslavia.....	39	180	3,483
Argentina.....	35	27	35	Other.....	221	702	3,183
Brazil.....	20	35	47				
Peru.....	16	20	11	<b>Totals</b> .....	<b>71,719</b>	<b>64,127</b>	<b>125,414</b>
Other.....	40	28	55				

<sup>1</sup> Includes 10 born at sea; 60, in Egypt; and 71, in Palestine.



**Racial Origins.**—In 1948, 40.0 p.c. of the immigrant arrivals in Canada were of British stock; 64.7 p.c. of these were English, 23.1 p.c. Scottish, 10.2 p.c. Irish and 2.0 p.c. Welsh. Of the 74,808 immigrants of Continental European stocks, which accounted for 59.6 p.c. of the total, 13,915 were Polish, 10,417 Netherland, 10,041 Ruthenian, 9,892 Jewish and 4,351 Lithuanian. Each of these stocks, as well as almost all other European stocks, showed a substantial increase in 1948 over 1947.

### 7.—Racial Origins of Immigrant Arrivals, 1946-48

NOTE.—Figures for 1926-45 will be found in the corresponding table of previous Year Books beginning with the 1939 edition.

Origin	1946	1947	1948	Origin	1946	1947	1948
	No.	No.	No.		No.	No.	No.
<b>British—</b>				<b>Continental European—</b>			
English.....	42,197	30,346	32,441	conc.			
Irish.....	4,632	4,006	5,096	Ruthenian.....	171	2,081	10,041
Scottish.....	10,209	8,696	11,590	Scandinavian—			
Welsh.....	1,294	1,035	981	Danish.....	168	263	681
<b>Totals, British.....</b>	<b>58,332</b>	<b>44,083</b>	<b>50,108</b>	Icelandic.....	24	11	11
				Norwegian.....	456	310	460
<b>Continental European—</b>				Swedish.....	231	232	254
Albanian.....	2	4	25	Serbian.....	18	59	892
Belgian.....	751	865	1,099	Slovak.....	19	92	455
Bohemian.....	31	27	24	Spanish.....	49	26	43
Bosnian.....	—	—	5	Swiss <sup>1</sup> .....	120	184	309
Bulgarian.....	3	9	69	Yugoslavic.....	34	81	1,504
Corsican.....	—	1	—	<b>Totals, Continental</b>			
Croatian.....	10	42	476	<b>European.....</b>	<b>13,078</b>	<b>19,544</b>	<b>74,808</b>
Czech.....	207	193	1,001				
Dalmatian.....	1	2	6				
Estonian.....	8	287	1,906	<b>Non-European—</b>			
Finnish.....	56	81	227	Arabian.....	—	2	6
French.....	3,229	1,523	1,884	Armenian.....	12	10	12
German.....	1,298	1,186	3,713	Chinese.....	8	21	76
Greek.....	108	711	775	East Indian.....	5	149	72
Italian.....	320	298	3,352	Indian (American).....	37	19	19
Jewish.....	2,100	2,424	9,892	Japanese.....	3	2	6
Lettish.....	6	450	3,074	Mexican.....	3	4	7
Lithuanian.....	28	1,295	4,351	Negro.....	173	197	204
Magyar.....	152	164	1,173	Persian.....	3	5	1
Maltese.....	12	24	719	Spanish American.....	21	44	48
Montenegrin.....	—	—	3	Syrian.....	37	45	44
Moravian.....	1	7	12	Turkish.....	7	2	3
Netherland.....	2,431	3,499	10,417	<b>Totals, Non-European.....</b>	<b>309</b>	<b>500</b>	<b>498</b>
Polish.....	730	2,735	13,915				
Portuguese.....	47	35	55	<b>Grand Totals.....</b>	<b>71,719</b>	<b>64,127</b>	<b>125,414</b>
Roumanian.....	44	50	544				
Russian.....	213	293	1,441				

<sup>1</sup> Reported as "Swiss" origin but are evidently one of the constituent races such as German, French, Italian, etc.

**Nationalities.**—The nationality of 39.6 p.c. of the total immigrants in 1948 was British, as compared with 64.9 p.c. in 1947. In the later year, 24.4 p.c. of the immigrants owed allegiance to Poland, 5.6 p.c. to the Netherlands, 5.3 p.c. to the United States, 4.0 p.c. to the Union of Soviet Socialist Republics and 3.6 p.c. to Lithuania.

#### 8.—Nationalities of Immigrant Arrivals, 1946-48

NOTE.—Figures for 1930-45 will be found in the corresponding table of previous Year Books beginning with the 1936 edition.

Nationality	1946	1947	1948	Nationality	1946	1947	1948
No.	No.	No.	No.	No.	No.	No.	No.
African (not British)....	—	1	5	Liechtenstein.....	—	9	2
Albanian.....	—	1	17	Lithuanian.....	2	1,265	4,473
Argentinian.....	2	3	1	Luxemburger.....	2	2	14
Austrian.....	25	72	151	Mexican.....	6	21	18
Belgian.....	79	817	1,136	Netherland.....	178	2,636	6,998
Brazilian.....	7	14	26	Norwegian.....	183	194	355
British.....	59,511	41,653	49,719	Peruvian.....	1	4	—
Bulgarian.....	2	10	70	Philippine.....	—	—	1
Central American.....	7	4	11	Polish.....	629	5,256	30,575
Chilean.....	4	1	2	Portuguese.....	4	4	9
Chinese.....	—	2	33	Roumanian.....	28	97	1,503
Cuban.....	1	11	19	Russian.....	23	701	4,993
Czechoslovakian.....	216	356	1,936	South American.....	2	7	15
Danish.....	36	165	632	Spanish.....	6	4	29
Danzig.....	—	—	7	Swedish.....	12	37	111
East Indian (not British)	—	1	—	Swiss.....	13	141	324
Estonian.....	3	281	1,951	Syrian.....	2	22	26
Finnish.....	7	40	157	Turkish.....	—	4	9
French.....	101	337	1,011	Ukrainian.....	1	26	106
German.....	844	139	289	United States.....	9,623	8,344	6,661
Greek.....	37	645	709	West Indian (not British)	1	1	8
Haitian.....	1	—	—	Yugoslavic.....	22	157	3,590
Hungarian.....	61	131	1,495	Other (Atlantic and			
Icelandic.....	—	5	3	Pacific Islands).....	—	—	2
Italian.....	35	52	3,071				
Japanese.....	—	—	4				
Latvian.....	2	454	3,137	<b>Totals.....</b>	<b>71,719</b>	<b>64,127</b>	<b>125,414</b>

**Intended Destination and Occupation.**—Past experience has shown that not all immigrants reach the province of intended destination or follow intended occupations. Table 9 gives the intended destination as given by the immigrant for those entering in 1948. Of the total immigrants, 39.3 p.c. were dependent wives and children, 15.8 p.c. were classed as farm workers, 12.2 p.c. as skilled workers and 13.1 p.c. as unskilled workers, while 7.9 p.c. were in the clerical, professional and merchant classes.

Of the total female immigrants, aside from dependent wives and children who accounted for 60.9 p.c., the largest number in any one class were listed as domestic servants, followed by clerical workers. Only 8.3 p.c. were classed as skilled workers.

## 9.—Immigration by Intended Destination and Occupation of the Immigrant, 1948

Intended Occupation	Intended Destination																		Canada				
	P.E.I.		N.S.		N.B.		Que.		Ont.		Man.		Sask.		Alta.		B.C.				Yukon and N.W.T.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			M.	F.	
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.			No.	No.	No.
Harming class.....	91	1	339	7	198	8	1,865	34	8,179	367	2,008	205	1,549	211	2,370	268	1,303	195	1	—	18,503	1,296	19,799
Clerical class.....	5	3	47	68	32	30	432	374	1,200	1,447	81	88	34	53	74	105	243	371	1	1	2,149	2,540	4,689
Professional class.....	3	2	40	31	33	15	357	215	627	332	121	34	50	20	99	36	175	97	1	—	1,506	782	2,288
Merchant class.....	5	1	40	17	30	12	405	75	1,180	474	72	24	28	20	102	43	363	91	2	—	2,227	737	2,984
<b>Skilled Workers—</b>																							
Bakers.....	1	—	3	—	1	—	28	—	117	5	9	—	6	—	4	—	18	1	—	—	187	6	193
Barbers.....	—	3	3	—	—	3	31	15	61	89	3	—	2	3	7	8	—	7	12	—	114	133	247
Butchers.....	—	—	4	—	1	1	30	—	141	—	19	—	4	—	13	—	—	—	—	—	239	1	240
Cabinetmakers.....	—	—	2	—	—	—	37	—	74	—	3	—	—	—	3	—	—	—	—	—	132	—	132
Carpenters and woodworkers.....	—	—	53	—	21	—	148	—	922	—	38	—	27	—	54	—	122	—	—	—	1,385	—	1,385
Dressmakers and seamstresses.....	—	1	—	2	—	1	1	278	3	261	—	29	—	13	—	29	—	51	—	—	4	665	669
Engineers, locomotive, marine and stationary.....	—	—	11	—	10	—	45	—	103	—	2	—	3	—	5	—	44	—	—	—	223	—	223
Electricians.....	1	—	19	—	7	—	107	—	527	—	29	—	17	—	28	—	91	—	—	—	826	1	827
Fur workers.....	—	—	1	—	—	—	324	58	50	5	1	—	—	—	2	—	4	—	—	—	383	64	447
Locksmiths.....	—	—	—	—	—	—	18	—	55	1	15	—	5	—	10	—	6	—	—	—	109	1	110
Machinists.....	—	—	5	—	4	—	35	—	228	1	13	—	10	1	14	—	25	—	—	—	334	2	336
Masons and bricklayers.....	—	—	5	—	6	—	37	—	348	—	7	—	6	—	15	—	30	—	—	—	454	—	454
Painters and glaziers.....	1	—	7	—	6	—	36	—	236	—	10	—	1	—	17	—	33	—	—	—	347	1	348
Photographers.....	1	—	2	—	2	—	21	2	68	12	6	2	1	—	6	2	12	3	—	—	117	21	138
Plasterers.....	—	—	2	—	2	—	20	—	73	—	—	—	—	—	14	—	10	—	—	—	120	—	120
Plumbers.....	1	—	6	—	1	—	20	—	160	—	7	—	5	—	—	—	20	—	—	—	234	—	234
Printers, pressmen and printing trade.....	—	—	—	—	3	—	37	—	161	10	4	1	3	—	6	—	18	—	—	—	232	11	243
Shoemakers.....	—	—	4	—	1	—	41	—	117	2	12	—	10	—	6	—	19	—	—	—	210	2	212
Sheet metal workers.....	—	—	4	—	1	—	17	1	108	6	5	1	—	—	5	—	12	—	—	—	152	9	161
Tailors.....	—	—	2	2	6	2	1,596	413	488	119	27	9	7	5	17	5	24	13	—	—	2,167	568	2,735
Textile workers, including weavers and spinners.....	1	—	6	6	3	1	89	36	352	223	3	9	2	1	5	4	8	7	—	—	469	287	756
Automobile mechanics.....	3	—	18	—	15	—	71	—	434	1	21	—	9	—	38	—	58	—	—	—	667	1	668
Skilled workers, n.e.s.....	6	—	100	2	39	1	737	26	2,630	88	110	—	57	1	148	4	470	11	—	—	4,300	137	4,437

## 9.—Immigration by Intended Destination and Occupation of the Immigrant, 1918—concluded

Intended Occupation	Intended Destination												Canada																			
	P.E.I.			N.S.			N.B.			Que.					Ont.			Man.			Sask.			Alta.			B.C.			Yukon and N.W.T.		
	M.		F.	M.		F.	M.		F.	M.		F.			M.		F.	M.		F.	M.		F.	M.		F.	M.		F.	M.		F.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.			No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	
Unskilled and Semi-Skilled Workers—																																
Lumbermen	—	—	19	—	—	17	—	—	42	—	—	256	—	—	8	—	4	—	23	—	108	—	—	—	—	—	—	—	—	—		
Miners	—	—	10	—	—	4	—	—	1,209	—	—	1,382	—	—	173	—	2	—	51	—	86	—	—	—	—	—	—	—	—	—		
General labourers	4	—	101	—	—	33	—	—	258	—	—	1,674	—	—	33	—	35	—	45	—	25	—	—	—	—	—	—	—	—	—		
Manufacturing	2	1	13	2	—	11	6	—	171	37	717	363	19	9	4	7	—	21	38	25	—	—	—	—	—	—	—	—	—	—		
Construction	1	—	13	—	—	6	—	—	73	—	—	2,405	—	—	21	—	38	—	39	—	87	—	—	—	—	—	—	—	—	—		
Transportation	1	—	98	—	—	21	—	—	184	—	—	1,273	—	—	341	—	152	—	204	—	315	2	—	—	—	—	—	—	—	—		
Apprentices to skilled trades	—	—	11	—	—	6	—	—	146	48	217	39	9	1	6	1	6	—	12	—	34	5	—	—	—	—	—	—	—	—		
Unskilled and semi-skilled, n.e.s.	3	4	28	49	10	24	316	268	491	1,158	28	188	15	148	43	196	108	329	—	—	—	—	—	—	—	—	—	—	—	—		
Other Classes—																																
Domestic servants	—	21	—	298	—	—	178	—	4,714	—	—	1,889	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Dependent children	23	2	287	273	130	135	—	—	2,187	—	—	6,306	—	—	870	785	586	592	1,265	1,197	1,543	1,410	—	—	—	—	—	—	—	—		
Dependent wives	—	34	—	482	—	—	266	—	3,899	—	—	11,607	—	—	1,221	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Occupation not given	8	14	31	122	19	89	—	—	92	430	343	1,770	23	222	30	222	33	336	189	629	—	—	—	—	—	—	—	—	—	—		
Soldiers	1	—	46	—	3	—	—	—	5	—	36	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Aircraft workers and pilots	—	—	2	—	1	—	—	—	40	—	82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Miscellaneous <sup>1</sup>	2	—	60	7	13	7	309	177	509	165	43	22	29	10	42	20	105	44	—	—	—	—	—	—	—	—	—	—	—	—		
Totals	161	105	1,442	1,371	697	779	11,627	13,069	31,833	26,788	4,209	3,541	2,744	2,343	5,509	4,206	5,813	6,105	52	26,67,090	58,324	125,411										

<sup>1</sup> Includes the following classes for which totals only are given here: blacksmiths, 87; bookbinders, 20; engravers, 14; hat and cap workers, 24; jewellers, goldsmiths and silversmiths, 26; millers, 32; milliners, 22; patternmakers, 18; stonecutters, 6; tanners, 13; upholsterers, 73; watch and clockmakers, 51; boilermakers, 49; ironworkers, 15; moulders, 61; fishermen, 72; and not stated, 982.



**Rejections and Deportations.**—The Immigration Act provides for the rejection and deportation of immigrants belonging to prohibited classes, and also for the deportation of those who become undesirables within five years after legal entry. The results of the operation of these regulations are shown in Tables 10 and 11, which give the numbers of immigrants rejected on arrival and those deported after admission, the causes of such rejections or deportations, and the nationalities of those deported for the years 1939-48.

**10.—Rejections of Immigrants and Others from Overseas, by Principal Causes and Nationalities and Total Rejections from the United States, 1939-48**

Item	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
<b>From Overseas</b>										
CAUSE										
Medical.....	9	10	16	18	16	16	18	29	51	51
Civil.....	168	235	118	121	163	156	237	410	318	359
NATIONALITY										
British.....	120	101	76	95	127	133	189	276	205	213
United States.....	4	7	—	2	1	5	—	6	—	2
Other.....	53	137	58	42	51	34	66	157	164	195
<b>Totals from Overseas.....</b>	<b>177</b>	<b>245</b>	<b>134</b>	<b>139</b>	<b>179</b>	<b>172</b>	<b>255</b>	<b>439</b>	<b>369</b>	<b>410</b>
<b>Totals from United States.....</b>	<b>9,973</b>	<b>11,862</b>	<b>7,734</b>	<b>3,693</b>	<b>2,730</b>	<b>2,801</b>	<b>5,787</b>	<b>8,753</b>	<b>7,925</b>	<b>7,338</b>
<b>Grand Totals.....</b>	<b>10,150</b>	<b>12,107</b>	<b>7,868</b>	<b>3,832</b>	<b>2,909</b>	<b>2,973</b>	<b>6,042</b>	<b>9,192</b>	<b>8,294</b>	<b>7,748</b>

**11.—Deportations of Immigrants and Others, by Principal Causes and Nationalities, 1939-48**

Item	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
CAUSE										
Medical.....	33	14	12	20	17	17	28	16	33	33
Public charges.....	29	8	2	—	2	3	1	10	8	18
Criminality.....	113	96	74	85	107	104	92	114	143	120
Misrepresentation and stealth.....	188	241	414	129	109	45	123	198	180	165
Other causes.....	45	32	9	8	9	12	12	5	4	16
Accompanying deported persons.....	5	1	5	2	2	—	—	—	—	2
NATIONALITY										
British.....	123	113	140	82	82	61	132	163	176	180
United States.....	162	117	122	98	98	86	64	83	97	80
Other.....	128	162	254	64	66	34	60	97	95	94
<b>Totals.....</b>	<b>413</b>	<b>392</b>	<b>516</b>	<b>244</b>	<b>246</b>	<b>181</b>	<b>256</b>	<b>343</b>	<b>368</b>	<b>354</b>

### Subsection 2.—Returning Canadians

The numbers of Canadians who returned to Canada from the United States after having left Canada to reside in that country are given in Table 12.

#### 12.—Canadians<sup>1</sup> Returned from the United States, 1937-48

NOTE.—Figures for 1926-36 are given at p. 182 of the 1948-49 Year Book.

Year	Canadian-Born Citizens	British Born who had Acquired Canadian Domicile	Naturalized Canadian Citizens	Total	Year	Canadian-Born Citizens	British Born who had Acquired Canadian Domicile	Naturalized Canadian Citizens	Total
1937.....	4,443	377	347	5,167	1943....	2,225	93	15	2,333
1938.....	4,016	333	310	4,659	1944....	2,070	120	20	2,210
1939.....	3,572	565	473	4,610	1945....	2,484	172	33	2,689
1940.....	4,705	207	78	4,990	1946....	4,535	558	84	5,177
1941.....	3,372	133	59	3,564	1947....	6,746	1,972	252	8,970
1942.....	3,269	170	28	3,467	1948....	4,438	1,077	163	5,678

<sup>1</sup> Not including aliens with Canadian domicile.

Returned Canadians and other non-immigrants who entered Canada from Newfoundland are shown in Table 13.

#### 13.—Returned Canadians and Other Non-Immigrants who entered Canada from Newfoundland, 1946-48

NOTE.—Figures for 1939-45 will be found in the corresponding tables of previous Year Books beginning with the 1942 edition.

Item	1946	1947	1948
	No.	No.	No.
Canadians returned after an absence of more than one year...	526	409	288
Canadian born.....	188	308	206
Other British born.....	329	99	81
Naturalized with Canadian domicile.....	7	—	—
Aliens with Canadian domicile.....	2	2	1
Canadians returned after an absence of less than one year...	7,909	7,741	9,989
Other non-immigrants.....	15,738	14,179	11,983
<b>Totals.....</b>	<b>24,173</b>	<b>22,329</b>	<b>22,260</b>

### Subsection 3.—Juvenile Immigration

Juvenile immigration, apart from children accompanying their parents, has not been a large factor since 1931, when the Federal Government ceased to grant financial assistance for this particular form of immigration. There were 33 juvenile immigrants in 1941, 23 in 1942, 28 in 1946, 6 in 1947 and 28 in 1948. An outline of juvenile immigration, including those children brought to Canada under the British Empire Settlement Agreement, is given at p. 121 of the 1941 Year Book.

### Subsection 4.—Oriental Immigration

Under wartime conditions, Oriental immigration ceased to be a problem and the economic effect of the presence of persons of Oriental origin can best be studied from census figures. The Chinese Immigration Act was repealed on May 14, 1947. Chinese immigration has been controlled under the Immigration Act subsequent to that date. Under the present regulations, the only persons of Asiatic racial origin who are admissible to Canada are the wives and minor children of Canadian citizens.

### 14.—Oriental Immigrants, 1927-48

NOTE.—Figures for 1906-26 are given at p. 183 of the 1948-49 Year Book.

Year	Chinese	Japanese	East Indian	Total	Year	Chinese	Japanese	East Indian	Total
	No.	No.	No.	No.		No.	No.	No.	No.
1927.....	2	511	56	569	1938....	—	57	9	66
1928.....	1	535	56	592	1939....	—	44	19	63
1929.....	1	180	49	230	1940....	—	44	6	50
1930.....	—	218	80	298	1941....	—	4	1	5
1931.....	—	174	52	226	1942....	—	—	3	3
1932.....	1	119	61	181	1943....	—	1	—	1
1933.....	1	106	36	143	1944....	—	—	—	—
1934.....	1	126	33	160	1945....	—	—	1	1
1935.....	—	70	26	96	1946....	8	3	5	16
1936.....	—	103	13	116	1947....	21	2	149	172
1937.....	1	146	11	158	1948....	76	6	72	154

### Section 2.—Emigration

Emigration from Canada is an important factor tending to offset the immigration activities of the past and has attained considerable proportions at certain periods. The two main factors have been the migration to the United States of Europeans originally immigrating to Canada and the emigration of native-born Canadians.

A question of considerable interest to Canadians is that of the permanent movement of population between Canada and the United States. In view of the lack of Canadian statistics on emigration, Table 15 has been compiled from figures supplied by the Immigration and Naturalization Service of the United States Department of Justice. Not all the statistics are available by months, so that it has not been possible to present the figures on a calendar-year basis; they are, therefore, shown on that of the United States fiscal year, July 1-June 30. The column headed "Deportable Aliens Destined to Canada" covers persons permitted to return to Canada in lieu of deportation proceedings.

### 15.—Presumed Permanent Movement of Population between Canada and the United States, Years Ended June 30, 1939-48

NOTE.—Figures for 1933-34 are given at p. 168 of the 1942 Year Book and for 1935-38 at p. 184 of the 1948-49 edition.

Year Ended June 30—	From United States to Canada				
	U.S. Citizens Entering Canada	Aliens Entering Canada	Aliens Deported to Canada	Deportable Aliens Destined to Canada	Totals <sup>1</sup>
1939.....	2,933	965	1,915	3,604	9,417
1940.....	2,695	769	1,503	3,981	8,948
1941.....	3,331	835	957	2,453	7,576
1942.....	3,413	595	631	2,187	6,826
1943.....	2,053	439	464	2,350 <sup>2</sup>	5,306
1944.....	2,282	451	665	3,500 <sup>2</sup>	6,898
1945.....	2,260	567	474	2,600 <sup>2</sup>	5,901
1946.....	4,624	745	672	2,800 <sup>2</sup>	8,841 <sup>2</sup>
1947.....	5,386	861	954	3,600 <sup>2</sup>	10,801 <sup>2</sup>
1948.....	4,880	1,055	887	2,000 <sup>2</sup>	8,822 <sup>2</sup>
	From Canada to United States				Net Movement into (+) or from (-) Canada
	Immigrant Aliens from Canada	U.S. Citizens Returning from Canada	Persons Deported from Canada	Totals	
1939.....	10,501	4,233	153	14,887	-5,470
1940.....	10,806	4,264	113	15,183	-6,235
1941.....	11,280	3,572	79	14,931	-7,355
1942.....	10,450	4,725	107	15,282	-8,456
1943.....	9,571	4,892	78	14,541	-9,235
1944.....	9,821	4,743	69	14,633	-7,735
1945.....	11,079	5,138	188	16,405	-10,504
1946.....	20,434	6,769	414	27,617	-18,776
1947.....	23,467	5,003	589	29,059	-18,258
1948.....	24,788	4,946	512	30,246	-21,424

<sup>1</sup> Figures do not include U.S.A. citizens who have entered Canada on permits and have applied for permission to remain in the country. Total U.S.A. immigrants arriving in Canada given in Table 2, p. 186, include this class.

<sup>2</sup> Estimated.



# CHAPTER VI.—VITAL STATISTICS\*

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

## Section 1.—Historical Sketch of the Collection of Vital Statistics in Canada

The history of the collection of vital statistics in Canada is covered broadly at pp. 185-188 in the 1948-49 edition of the Year Book.

A review is given below of the collection of vital statistics in Newfoundland prior to union with Canada which is presented as a background for the statistics appearing separately in Section 9 of this Chapter.

**Classification of Vital Statistics.**—Until recently, vital statistics in Canada were all classified by place of occurrence. In 1944, however, the classification of births and deaths by residence was begun, births being classified by the residence of the mother. A number of special tabulations by residence have been made for a few years prior to 1944: in Tables 1 to 4 and in Tables 9, 10, 11, 21 and 22 the figures are shown for the five-year average 1941-45. Marriages are classified by place of occurrence and in this case comparable averages can be carried back to 1926.

**Vital Statistics of Newfoundland Prior to Union.**—The collection of vital statistics in Newfoundland has been a history of struggle against continual difficulties. The scattered distribution of isolated settlements along the coastline, where in many places there is not even to-day any regular system of communication or transportation, results each year in long delays in the collection of data. Economic and geographic factors have prevented any effective growth of municipal or local government organization compelling all reporting activity to be organized and administered directly from St. John's City. In recent years, however, doctors have been located at strategic points throughout the Island, but many births and illnesses are still unattended by the medical profession. The small population and low per capita income has resulted in an individual approach being made to most problems. Except for the birth and marriage data statistical information was required, principally, for the issue of passports. The incompleteness of existing vital statistics is also a result of the disastrous fire of 1892 which practically destroyed the city of St. John's with registrar and church records.†

\* Revised in the Health and Welfare Division, Vital Statistics Section, Dominion Bureau of Statistics.

† The building up of vital statistic material in 1949 assumed a role of greatly increased importance with the coming into force in the Province of Newfoundland of Family Allowances and the joint Federal-Provincial Old Age Pension Act—both measures have added enormously to the duties of the office of the Registrar General of the Province.

Authority for the collection and analysis of vital statistics in Newfoundland is contained in "An Act to provide for Registration, Births, Marriages, and Deaths", passed in 1890, which now forms Chapter 19 of the Consolidated Statutes of Newfoundland (third series). The Act remained in abeyance until May 1, 1891, when it came into force. Prior to this Act, the law of England was applicable to the reporting of vital statistics.

The Act requires that all births, marriages and deaths in Newfoundland be registered in a public register to be kept in St. John's City and provides for the appointment of a Registrar General. Every clergyman or other person baptizing, celebrating marriage or performing funeral services is made a "Registering Officer" and is required to keep a register of the names and dates of birth of all persons baptized, and of all marriages and deaths at which he officiates. This information is to be reported quarterly (monthly in St. John's) to the Registrar General.

In the case of death the same provisions apply to the medical attendant or undertaker and failing these to the next of kin. In St. John's a death certificate, a copy of which is sent to the Registrar General, is required before a body can be accepted for burial but it has not always been possible to carry out this procedure in all parts of Newfoundland.

## Section 2.—Summary of Vital Statistics

Tables 1 to 5 give a summary of the vital statistics of Canada and the provinces for the years 1941 to 1947.

In comparing the birth, death and marriage rates of the provinces, it is useful to bear in mind that part of the differences observed may be due to differences in the sex and age distribution of their populations. Similarly, changes in these rates may be due partly to changes in this distribution. These remarks also apply to international comparisons of birth, death and marriage rates. Over the past 15 years, the death rate in British Columbia has been rising, while in Ontario it has been more or less stable, with the result that, though 15 years ago the death rate in Ontario was considerably higher than in British Columbia, at present their rates are about equal. This does not mean, however, that the mortality rates at each age have risen in British Columbia. On the contrary, they have been falling. The death rate for the population as a whole has been rising because the increasing proportion of population in the higher age groups has more than outweighed the fall in the mortality rates at each age.

### 1.—Live Births and Birth Rates per 1,000 Population, by Provinces, 1944-47, with Averages, 1941-45

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada <sup>1</sup>
LIVE BIRTHS										
Av. 1941-45....	2,187	15,082	12,961	98,153	77,506	15,782	18,492	18,908	17,685	276,756
1944.....	2,286	15,598	13,467	102,262	78,090	16,008	18,138	19,372	18,999	284,220
1945.....	2,258	15,527	13,693	104,283	78,974	16,253	18,926	19,939	18,877	288,730
1946.....	2,793	17,914	16,274	111,285	97,446	18,794	21,433	22,184	22,609	330,732
1947.....	2,992	19,265	17,771	115,553	108,853	20,409	23,334	24,631	26,286	359,094
RATES PER 1,000 POPULATION										
Av. 1941-45....	23.8	25.1	28.0	28.5	19.8	21.6	21.6	23.6	19.8	23.5
1944.....	25.1	25.5	29.1	29.2	19.7	21.9	21.4	23.7	20.4	23.8
1945.....	24.5	25.0	29.3	29.3	19.7	22.1	22.4	24.1	19.9	23.9
1946.....	29.7	29.3	33.9	30.7	23.8	25.9	25.7	27.6	22.5	26.9
1947.....	31.8	31.0	36.2	31.1	26.0	27.5	27.7	30.0	25.2	28.6

<sup>1</sup> Exclusive of the Territories.

## 2.—Deaths and Death Rates per 1,000 Population, by Provinces, 1944-47, with Averages, 1941-45

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada <sup>1</sup>
DEATHS										
Av. 1941-45....	967	6,313	5,009	34,312	39,715	6,601	6,504	6,346	9,330	115,097
1944.....	926	6,229	5,131	34,813	39,781	6,701	6,454	6,320	9,697	116,052
1945.....	888	5,625	4,865	33,348	39,499	6,550	6,429	6,454	9,756	113,414
1946.....	874	6,046	4,866	33,690	39,758	6,537	6,422	6,601	10,137	114,931
1947.....	1,020	6,009	4,832	33,708	41,619	6,771	6,610	6,543	10,613	117,725
RATES PER 1,000 POPULATION										
Av. 1941-45....	10.5	10.5	10.8	10.0	10.2	9.0	7.6	7.9	10.4	9.8
1944.....	10.2	10.2	11.1	9.9	10.0	9.2	7.6	7.7	10.4	9.7
1945.....	9.7	9.1	10.4	9.4	9.9	8.9	7.6	7.8	10.3	9.4
1946.....	9.3	9.9	10.1	9.3	9.7	9.0	7.7	8.2	10.1	9.4
1947.....	10.9	9.7	9.8	9.1	9.9	9.1	7.9	8.0	10.2	9.4

<sup>1</sup> Exclusive of the Territories.

## 3.—Infant Mortality<sup>1</sup> and Rates per 1,000 Live Births, by Provinces, 1944-47, with Averages, 1941-45

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada <sup>2</sup>
INFANT DEATHS										
Av. 1941-45....	114	870	956	6,705	3,265	807	862	829	686	15,094
1944.....	102	838	1,035	6,918	3,346	786	858	889	767	15,539
1945.....	102	823	966	6,464	3,209	781	824	862	792	14,823
1946.....	97	822	1,066	6,110	3,653	885	1,004	945	852	15,434
1947.....	135	840	1,041	6,583	3,914	931	1,018	915	959	16,336
RATES PER 1,000 LIVE BIRTHS										
Av. 1941-45....	52	58	74	68	42	51	47	44	39	55
1944.....	45	54	77	68	43	49	47	46	40	55
1945.....	45	53	71	62	41	48	44	43	42	51
1946.....	35	46	66	55	37	47	47	43	38	47
1947.....	45	44	59	57	36	46	44	37	36	45

<sup>1</sup> Under one year of age.<sup>2</sup> Exclusive of the Territories.

## 4.—Natural Increase and Rates per 1,000 Population, by Provinces, 1944-47, with Averages, 1941-45

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada <sup>1</sup>
EXCESS OF BIRTHS OVER DEATHS										
Av. 1941-45....	1,220	8,769	7,952	63,841	37,791	9,181	11,988	12,562	8,355	161,659
1944.....	1,360	9,369	8,336	67,449	38,309	9,307	11,684	13,052	9,302	168,168
1945.....	1,370	9,902	8,828	70,935	39,475	9,703	12,497	13,485	9,121	175,316
1946.....	1,919	11,868	11,408	77,695	57,688	12,257	15,011	15,583	12,472	215,801
1947.....	1,972	13,256	12,939	81,845	67,234	13,638	16,724	18,088	15,673	241,369
RATES PER 1,000 POPULATION										
Av. 1941-45....	13.3	14.6	17.2	18.5	9.6	12.6	14.0	15.7	9.4	13.7
1944.....	14.9	15.3	18.0	19.3	9.7	12.7	13.8	16.0	10.0	14.1
1945.....	14.8	15.9	18.9	19.9	9.8	13.2	14.8	16.3	9.6	14.5
1946.....	20.4	19.4	23.8	21.4	14.1	16.9	18.0	19.4	12.4	17.5
1947.....	20.9	21.3	26.4	22.0	16.1	18.4	19.8	22.0	15.0	19.2

<sup>1</sup> Exclusive of the Territories.

**5.—Marriages and Rates per 1,000 Population, by Provinces, 1944-47, with  
Five-Year Averages, 1926-45**

NOTE.—Classified by place of occurrence.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada <sup>1</sup>
MARRIAGES										
Av. 1926-30....	473	3,224	2,970	18,731	25,449	4,951	6,036	5,265	4,786	71,886
Av. 1931-35....	496	3,522	2,737	17,089	24,260	5,015	5,680	5,530	4,267	68,594
Av. 1936-40....	623	4,796	3,801	27,111	32,719	6,931	6,599	7,192	7,053	96,824
Av. 1941-45....	686	6,302	4,433	33,126	38,042	7,295	6,541	7,977	9,535	113,936
1944.....	646	5,942	3,813	31,922	31,227	6,294	5,919	7,299	8,434	101,496
1945.....	680	5,992	4,491	33,211	34,137	6,579	6,369	7,310	9,262	108,031
1946.....	837	6,549	5,866	36,650	46,073	8,594	8,279	9,478	11,762	134,088
1947.....	676	5,861	5,189	35,494	44,056	7,712	7,674	8,797	11,852	127,311
RATES PER 1,000 POPULATION										
Av. 1926-30....	5.4	6.3	7.4	6.9	7.8	7.5	7.0	8.0	7.5	7.3
Av. 1931-35....	5.5	6.7	6.5	5.8	6.9	7.1	6.1	7.4	6.0	6.5
Av. 1936-40....	6.6	8.6	8.6	8.5	8.9	9.6	7.2	9.2	9.1	8.7
Av. 1941-45....	7.5	10.5	9.6	9.6	9.7	10.0	7.6	10.0	10.7	9.7
1944.....	7.1	9.7	8.3	9.1	7.9	8.6	7.0	8.9	9.0	8.5
1945.....	7.4	9.6	9.6	9.3	8.5	8.9	7.5	8.8	9.8	8.9
1946.....	8.9	10.7	12.2	10.1	11.2	11.8	9.9	11.8	11.7	10.9
1947.....	7.2	9.4	10.6	9.6	10.5	10.4	9.1	10.7	11.4	10.1

<sup>1</sup> Exclusive of the Territories.

**Canadian Life Tables.**—Life tables have been calculated on the basis of the population of 1941 and the deaths of 1940-42. These are the second official life tables for Canada to be published, the first having been calculated on the basis of the deaths of 1930-32 and the population of 1931. The life table for 1941 is given in abbreviated form in Table 6.

Life tables give a summary of the health and general conditions of survival of the population in a conventional, standard form. A hypothetical number (100,000) of births of each sex is assumed. The life tables show how, on the basis of the mortality rates at each age in the given years, these 100,000 of each sex are reduced in number by death. For example, during the period 1940-42, of 100,000 males born, 6,250 died in their first year, so that 93,750 survived to one year of age; 676 died in their second year, so that 93,074 survived to two years of age; and so on. At 100 years of age, only 50 of the original 100,000 would have survived. The probability of death at each age is the ratio between the number of deaths and the population at each age. Finally, the expectation of life is the average number of years which a person might expect to live if the mortality rates in the given years remained constant.



6.—Canadian Life Tables, 1941, based on Population, 1941, and Deaths, 1940-42

Age	Males				Females			
	Number Living at Each Age	Number Dying Between Each Age and the Next	Probability of Dying at Each Age	Expectation of Life	Number Living at Each Age	Number Dying Between Each Age and the Next	Probability of Dying at Each Age	Expectation of Life
Under 1 year.....	100,000				100,000			
1 year.....	93,750	6,250	·06250	62·95	95,069	4,931	·04931	66·29
2 years.....	93,074	676	·00721	66·14	94,466	603	·00634	68·73
3 ".....	92,704	370	·00398	65·62	94,158	308	·00326	68·16
4 ".....	92,431	273	·00294	64·88	93,911	247	·00262	67·38
5 ".....	92,215	216	·00234	64·07	93,729	182	·00194	66·56
10 ".....	91,486	729	·00198	63·22	93,152	577	·00157	65·69
15 ".....	90,901	585	·00122	58·70	92,703	449	·00090	61·08
20 ".....	90,014	887	·00163	54·06	92,030	673	·00122	56·36
25 ".....	88,867	1,147	·00241	49·51	91,107	923	·00180	51·76
30 ".....	87,741	1,126	·00257	45·18	89,995	1,112	·00231	47·26
35 ".....	86,533	1,208	·00260	40·73	88,760	1,235	·00260	42·81
40 ".....	84,992	1,541	·00317	36·26	87,242	1,518	·00314	38·37
45 ".....	82,925	2,067	·00428	31·87	85,393	1,849	·00386	33·99
50 ".....	80,051	2,874	·00598	27·60	82,959	2,434	·00504	29·67
55 ".....	75,882	4,169	·00895	23·49	79,606	3,353	·00701	25·46
60 ".....	70,015	5,867	·01346	19·64	74,830	4,776	·01042	21·42
65 ".....	61,943	8,072	·02029	16·06	68,211	6,619	·01528	17·62
70 ".....	51,294	10,649	·03090	12·81	58,711	9,500	·02426	14·08
75 ".....	38,121	13,173	·04759	9·94	46,172	12,539	·03812	10·93
80 ".....	23,635	14,486	·07547	7·48	30,724	15,448	·06358	8·19
85 ".....	11,183	12,452	·11738	5·54	15,978	14,746	·10196	6·03
90 ".....	3,596	7,587	·17404	4·05	5,676	10,302	·15776	4·35
95 ".....	652	2,944	·25042	2·93	1,170	4,506	·23391	3·13
100 ".....	50	602	·35167	2·09	114	1,056	·32852	2·26
		50	·48197	1·46		114	·44010	1·64

Mortality rates for males are higher at all ages than for females, particularly in infancy. Infant mortality in 1940-42 was 62 per 1,000 live births for males compared to 49 per 1,000 for females. Because infant mortality is still so high, the expectation of life at birth is less for both sexes than at age 1. Males who have survived their first year have an expectation of life of 66 years and females of 69 years. The expectation of life of a boy at age 15 is 54 years, and of a girl 56 years. At age 25, it is 45 years for men and 47 for women. At age 70, when people become eligible for old age pensions, it is 10 years for men and 11 years for women. In 1930-32 mortality rates for females from 25 to 40 years of age were higher than those for males. In 1940-42, however, because of the reduction in maternal mortality, this was not so.

## Section 3.—Births

**International Comparisons.**—A comparison of the birth rates in Canada and the provinces with those in other countries is shown in Table 7.

**7.—Birth Rates per 1,000 Population of various Countries of the World compared with Canada and the Provinces, for recent years**

(Sources: Monthly Bulletin of Statistics of the United Nations and other official publications. In certain cases final figures are not available and provisional data are used.)

Country or Province	Year	Birth Rate	Country	Year	Birth Rate
Palestine (excluding Bedouins).....	1946	44.4	United States.....	1947	25.8
El Salvador.....	1947	41.2	Iceland.....	1944	25.4
Ceylon.....	1947	39.4	Australia.....	1947	24.1
Newfoundland and Labrador.....	1946	36.3	Bulgaria.....	1947	24.0
Panama.....	1947	34.7	Northern Ireland.....	1947	23.3
Chile.....	1947	33.8	Ireland.....	1947	23.1
<b>Canada</b> .....	<b>1947</b>	<b>28.6</b>	Norway.....	1946	22.6
New Brunswick.....	1947	36.2	Roumania.....	1947	22.4
Prince Edward Island.....	1947	31.8	Denmark.....	1947	22.1
Quebec.....	1947	31.1	Scotland.....	1947	22.0
Nova Scotia.....	1947	31.0	Italy.....	1947	21.9
Alberta.....	1947	30.0	Spain.....	1947	21.3
Saskatchewan.....	1947	27.7	France.....	1947	21.0
Manitoba.....	1947	27.5	England and Wales.....	1947	20.6
Ontario.....	1947	26.0	Switzerland.....	1947	19.3
British Columbia.....	1947	25.2	Sweden.....	1947	18.9
Netherlands.....	1947	27.8	Austria.....	1947	18.6
Union of South Africa (Whites).....	1947	27.1	Hungary.....	1947	18.4
New Zealand (excluding Maoris)....	1947	26.4	Belgium.....	1947	17.8

In Canada, in 1921, the birth rate was 29.4 per 1,000. Since a rate of 35 per 1,000 is very high for countries of modern western civilization, the Canadian birth rate had probably not fallen far or for long before then. It fell continuously until 1937, when it was 20.0 per 1,000 but since then, owing to economic recovery and the War, it rose to 21.5 in 1940, to 24.0 in 1943 and to 28.6 in 1947. The birth rate in the provinces followed the same general trend, though in the Maritimes the fall stopped before 1930.

**Sex of Live Births.**—Wherever birth statistics have been collected, they have shown an excess of male over female births. No conclusive explanation of this excess has yet been given. Nevertheless it is so much of an accepted statistical fact that a proper ratio of male to female births has become one of the criteria of complete registration. The number of males to every 1,000 females born in Canada in 1941-47 varied between 1,067 and 1,051.

Hospitalization and medical attendance at birth have increased in Canada. In 1926-30, only 22 p.c. of live births occurred in hospitals, while in 1940-42 the proportion was 49.5 and in 1947, 71 p.c. The provinces still differ greatly in this respect. In 1947 the proportions of births that occurred in hospitals were: Quebec 39 p.c., New Brunswick 59 p.c., Prince Edward Island 72 p.c., Nova Scotia 79 p.c., Ontario 87 p.c., Manitoba 88 p.c., Saskatchewan 90 p.c., Alberta 94 p.c., and British Columbia 96 p.c.

### 8.—Live Births by Sex, Birth Rates, and Ratio of Males to Females, by Provinces, 1945-47

Province and Year	Total Live Births	Rate per 1,000 Population	Males		Females		Males to 1,000 Females	
			Number	P.C. of Total	Number	P.C. of Total		
Prince Edward Island .....	1945	2,258	24.5	1,167	51.7	1,091	48.3	1,070
	1946	2,793	29.7	1,444	51.7	1,349	48.3	1,070
	1947	2,992	31.8	1,532	51.2	1,460	48.8	1,049
Nova Scotia.....	1945	15,527	25.0	8,086	52.1	7,441	47.9	1,087
	1946	17,914	29.3	9,133	51.0	8,781	49.0	1,040
	1947	19,265	31.0	9,771	50.7	9,494	49.3	1,029
New Brunswick.....	1945	13,693	29.3	6,999	51.1	6,694	48.9	1,046
	1946	16,274	33.9	8,293	51.0	7,981	49.0	1,039
	1947	17,771	36.2	9,134	51.4	8,637	48.6	1,058
Quebec.....	1945	104,283	29.3	53,582	51.4	50,701	48.6	1,057
	1946	111,285	30.7	57,280	51.5	54,005	48.5	1,061
	1947	115,553	31.1	59,393	51.4	56,160	48.6	1,058
Ontario.....	1945	78,974	19.7	40,817	51.7	38,157	48.3	1,070
	1946	97,446	23.8	50,385	51.7	47,061	48.3	1,071
	1947	108,853	26.0	55,716	51.2	53,137	48.8	1,049
Manitoba.....	1945	16,253	22.1	8,425	51.8	7,828	48.2	1,076
	1946	18,794	25.9	9,645	51.3	9,149	48.7	1,054
	1947	20,409	27.5	10,374	50.8	10,035	49.2	1,034
Saskatchewan.....	1945	18,926	22.4	9,794	51.7	9,132	48.3	1,072
	1946	21,433	25.7	10,974	51.2	10,459	48.8	1,049
	1947	23,334	27.7	11,968	51.3	11,366	48.7	1,053
Alberta.....	1945	19,939	24.1	10,315	51.7	9,624	48.3	1,072
	1946	22,184	27.6	11,302	50.9	10,882	49.1	1,039
	1947	24,631	30.0	12,080	51.5	11,951	48.5	1,061
British Columbia.....	1945	18,877	19.9	9,727	51.5	9,150	48.5	1,063
	1946	22,609	22.5	11,489	50.8	11,120	49.2	1,033
	1947	26,286	25.2	13,405	51.0	12,881	49.0	1,041
Canada (Exclusive of the Territories).....	1945	288,730	23.9	148,912	51.6	139,818	48.4	1,065
	1946	330,732	26.9	169,945	51.4	160,787	48.6	1,057
	1947	359,094	28.6	183,973	51.2	175,121	48.8	1,051

**Births in Urban Centres.**—Table 9 shows the number of live births in the urban centres of Canada with 10,000 population or over in 1941. The figures are by the residence of the mother, and show the number of births, wherever occurring, to residents of each centre.

### 9.—Live Births in Urban Centres of 10,000 Population or Over, 1941-47, with Averages, 1941-45

Province and Urban Centre	Census Population, 1941	Average, 1941-45	1944	1945	1946	1947
<b>Prince Edward Island—</b>	No.	No.	No.	No.	No.	No.
Charlottetown.....	14,821	385	407	395	479	506
<b>Nova Scotia—</b>						
Dartmouth.....	10,847	405	430	430	476	517
Glace Bay.....	25,147	729	718	718	863	898
Halifax.....	70,488	2,027	2,094	2,044	2,352	2,517
Sydney.....	28,305	930	953	940	1,035	1,071
Truro.....	10,272	292	303	274	342	396
<b>New Brunswick—</b>						
Fredericton.....	10,062	228	237	287 <sup>1</sup>	395 <sup>1</sup>	482 <sup>1</sup>
Moncton.....	22,763	644	721	687	774	876
Saint John.....	51,741	1,364	1,445	1,322	1,682	1,734

<sup>1</sup> Includes Devon.

**9.—Live Births in Urban Centres of 10,000 Population or Over, 1944-47,  
with Averages, 1941-45—concluded**

Province and Urban Centre	Census Population, 1941	Live Births				
		Average, 1941-45	1944	1945	1946	1947
	No.	No.	No.	No.	No.	No.
<b>Quebec—</b>						
Cap-de-la-Madeleine.....	11,961	371	363	388	449	445
Chicoutimi.....	16,040	890	1,091	904	936	988
Drummondville.....	10,555	370	403	385	448	485
Granby.....	14,197	464	451	515	606	700
Hull.....	32,947	1,174	1,209	1,229	1,383	1,454
Joliette.....	12,749	407	411	406	438	415
Jonquière.....	13,769	862	968	861	729	740
Lachine.....	20,051	501	504	534	609	669
Lévis.....	11,991	328	350	339	386	374
Montreal.....	903,007	21,356	22,225	22,775	24,099	24,646
Outremont.....	30,751	331	353	316	404	433
Quebec.....	150,757	4,315	4,605	4,402	4,457	4,490
St. Hyacinthe.....	17,798	419	459	417	487	560
St. Jean.....	13,646	415	446	457	413	480
St. Jérôme.....	11,329	429	458	454	530	586
Shawinigan Falls.....	20,325	850	896	957	867	909
Sherbrooke.....	35,965	1,141	1,166	1,256	1,309	1,478
Sorel.....	12,251	480	572	550	454	525
Thetford Mines.....	12,716	417	423	409	437	498
Three Rivers.....	42,007	1,235	1,199	1,199	1,255	1,235
Valleyfield.....	17,052	665	703	631	660	660
Verdun.....	67,349	1,520	1,579	1,588	1,826	1,775
Westmount.....	26,047	251	305	275	345	297
<b>Ontario—</b>						
Belleville.....	15,710	383	369	391	469	519
Brantford.....	31,948	765	757	797	1,016	1,083
Brockville.....	11,342	260	271	276	297	364
Chatham.....	17,369	412	362	413	472	554
Cornwall.....	14,117	506	526	516	701	698
Forest Hill.....	11,757	158	183	188	143	209
Fort William.....	30,585	648	653	668	872	986
Galt.....	15,346	312	342	299	460	457
Guelph.....	23,273	469	466	456	580	693
Hamilton.....	166,337	3,462	3,676	3,489	4,623	4,694
Kingston.....	30,126	844	875	842	1,081	1,041
Kitchener.....	35,657	711	659	743	936	1,051
London.....	78,264	1,689	1,735	1,774	2,266	2,425
Niagara Falls.....	20,589	540	533	527	654	786
North Bay.....	15,599	362	383	383	455	509
Oshawa.....	26,813	584	579	593	675	737
Ottawa.....	154,951	3,357	3,492	3,609	4,518	4,532
Owen Sound.....	14,002	315	324	282	402	476
Pembroke.....	11,159	299	303	302	374	358
Peterborough.....	25,350	680	682	759	970	1,092
Port Arthur.....	24,426	558	538	500	691	831
St. Catharines.....	30,275	734	790	757	895	1,004
St. Thomas.....	17,132	382	382	368	433	444
Samia.....	18,734	447	465	509	605	701
Sault Ste. Marie.....	25,794	725	726	744	823	919
Stratford.....	17,038	288	314	265	399	445
Sudbury.....	32,203	1,324	1,282	1,237	1,230	1,408
Timmins.....	28,790	833	683	751	851	953
Toronto.....	667,457	11,163	11,336	11,360	15,448	15,261
Welland.....	12,500	357	369	323	375	412
Windsor.....	105,311	2,383	2,426	2,248	2,907	3,027
Woodstock.....	12,461	267	236	265	342	349
<b>Manitoba—</b>						
Brandon.....	17,383	356	389	355	395	438
St. Boniface.....	18,157	425	471	448	603	687
Winnipeg.....	221,960	4,087	4,165	4,276	5,291	5,637
<b>Saskatchewan—</b>						
Moose Jaw.....	20,753	462	470	454	591	678
Prince Albert.....	12,508	340	365	368	437	536
Regina.....	58,245	1,172	1,155	1,205	1,572	1,823
Saskatoon.....	43,027	843	899	907	1,251	1,481
<b>Alberta—</b>						
Calgary.....	88,904	2,058	2,190	2,231	2,559	3,069
Edmonton.....	93,817	2,379	2,565	2,793	3,431	3,999
Lethbridge.....	14,612	372	409	421	483	588
Medicine Hat.....	10,571	287	332	300	356	378
<b>British Columbia—</b>						
New Westminster.....	21,967	493	504	504	564	612
Vancouver.....	275,353	5,397	5,827	5,711	6,979	7,811
Victoria.....	44,068	1,150	1,383	1,130	1,211	1,213



**Illegitimacy.**—Less than 5 p.c. of live births in Canada are illegitimate. This percentage is comparatively low. The percentage in the five-year period 1926-30 was 3.01 and in 1941-45 it was 4.17. The apparent increase is partly due to the more complete registration of illegitimate births, brought about by the co-operation of provincial registration officials and social welfare agencies and by their more sensible and sympathetic treatment of illegitimacy.

**10.—Illegitimate Live Births, and Percentages of Total Live Births, by Provinces, 1944-47, with Averages, 1941-45**

Item	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada <sup>1</sup>
ILLEGITIMATE LIVE BIRTHS										
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Av. 1941-45.....	115	1,067	619	3,001	3,712	595	697	849	879	11,534
1944.....	101	1,165	698	3,098	3,764	653	703	849	1,048	12,079
1945.....	138	1,228	761	3,058	4,075	677	829	1,050	1,121	12,937
1946.....	149	1,288	773	3,031	4,165	750	959	1,218	1,262	13,595
1947.....	149	1,325	767	3,183	4,748	744	961	1,159	1,502	14,538
PERCENTAGES TO TOTAL LIVE BIRTHS										
Av. 1941-45.....	5.3	7.1	4.8	3.1	4.8	3.8	3.8	4.5	5.0	4.17
1944.....	4.4	7.5	5.2	3.0	4.8	4.1	3.9	4.4	5.5	4.25
1945.....	6.1	7.9	5.6	2.9	5.2	4.2	4.4	5.3	5.9	4.48
1946.....	5.3	7.2	4.7	2.7	4.3	4.0	4.5	5.5	5.6	4.11
1947.....	5.0	6.9	4.3	2.8	4.4	3.6	4.1	4.7	5.7	4.05

<sup>1</sup> Exclusive of the Territories.

**Stillbirths.**—Table 11 shows the number of stillbirths in Canada and the provinces, together with the rates per 1,000 live births. The rate of stillbirths has been falling since 1926, though not equally in all provinces. The rate of illegitimate stillbirths per 1,000 illegitimate live births is considerably higher than the rate of legitimate stillbirths, and consequently higher than the over-all rate.

**11.—Stillbirths, and Rates per 1,000 Live Births, by Provinces, 1944-47 with Averages, 1941-45**

Item	Born to All Mothers										Born to Unmarried Mothers	
	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada <sup>1</sup>	No.	P.C. of Total
TOTALS, STILLBIRTHS												
Av. 1941-45.....	50	385	291	2,797	1,982	344	349	329	308	6,835	355	5.20
1944.....	42	405	283	2,814	1,866	315	344	335	301	6,705	369	5.50
1945.....	40	327	267	2,880	1,844	327	334	312	337	6,668	336	5.04
1946.....	63	378	321	2,927	2,016	360	372	363	321	7,121	353	4.96
1947.....	58	401	344	3,029	2,176	336	362	415	340	7,461	338	4.53
RATES PER 1,000 LIVE BIRTHS											Per 1,000 Illegitimate Live Births	
Av. 1941-45.....	23.0	25.5	22.4	28.5	25.6	21.8	18.9	17.4	17.4	24.7	30.8	
1944.....	18.4	26.0	21.0	27.5	23.9	19.7	19.0	17.3	15.8	23.6	30.5	
1945.....	17.7	21.1	19.5	27.6	23.3	20.1	17.6	15.6	17.9	23.1	26.0	
1946.....	22.6	21.1	19.7	26.3	20.7	19.2	17.4	16.4	14.2	21.5	26.0	
1947.....	19.4	20.8	19.4	26.2	20.0	16.5	15.5	16.8	12.9	20.8	23.2	

<sup>1</sup> Exclusive of the Territories.

**Multiple Births.**—Approximately one confinement in 85 in Canada results in the birth of more than one child. In the period 1926-47 there have been 65,511 such confinements, of which 64,909 were twins and 595 were triplets. There have been six sets of quadruplets. The Dionne quintuplets were born in 1934.

The proportion of stillbirths is higher among multiple than among single births. It is about twice as high for twins and between three and five times as high for triplets.

### 12.—Single and Multiple Births, Live and Stillborn, 1945-47

Confinements and Births	1945	1946	1947	1945	1946	1947
	NUMBERS			PERCENTAGES		
<b>Confinements—</b>						
Single.....	288,734	330,405	358,385	98.9	98.9	98.9
Twin.....	3,283	3,664	4,031	1.1	1.1	1.1
Triplet.....	30	40	36	--	--	--
Quadruplet.....	2	—	—	--	...	...
<b>Totals, Confinements.....</b>	<b>292,049</b>	<b>334,109</b>	<b>362,452</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Births—</b>						
Single—						
Live.....	282,330	323,586	351,281	97.8	97.9	98.0
Stillborn.....	6,404	6,819	7,104	2.2	2.1	2.0
Twin—						
Live.....	6,310	7,034	7,712	96.1	96.0	95.7
Stillborn.....	256	294	350	3.9	4.0	4.3
Triplet—						
Live.....	83	112	101	92.2	93.3	93.5
Stillborn.....	7	8	7	7.8	6.7	6.5
Quadruplet—						
Live.....	7	—	—	87.5	...	...
Stillborn.....	1	—	—	12.5	...	...
<b>Totals, Births.....</b>	<b>295,398</b>	<b>337,853</b>	<b>366,555</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Live.....	288,730	330,732	359,094	97.7	97.9	98.0
Stillborn.....	6,668	7,121	7,461	2.3	2.1	2.0

**Fertility Rates.**—The sex and age distribution of the population is an important factor in determining birth, death and marriage rates. Since more than 95 p.c. of children are born to women between the ages of 15 and 50, differences in the proportion of women of these ages to the population as a whole will cause differences in the birth rates of different countries or regions, even though the fertility of women at each age may be the same. Measures of fertility which are independent of the sex and age distribution of the population have, therefore, been devised. The best known of these are age-specific fertility rates and reproduction rates.

Further details on this subject may be found at pp. 153-154 of the 1947 edition of the Year Book or from the report "Gross and Net Reproduction Rates, Canada and the Provinces", published by the Dominion Bureau of Statistics, Ottawa.

**Ages of Parents.**—The numerical and percentage distribution of legitimate live births by the ages of the parents is given in Table 13, of illegitimate live births by the age of the mother in Table 14, and of stillbirths by the age of the mother in Table 15. The average ages of the parents are also given.

In 1930-32 the average age of fathers was 33.7 years and of mothers 29.3 years. The average age of parents is now slightly lower. Besides the fertility rates at each age, two other factors help to determine the average age of parents having children; first, the average age of potential parents, that is, of the population between the

ages of 15 and 50 and secondly, the proportions of first and second births to the total. The average age of men between 15 and 50 was 30·9 years in 1931 and 30·7 in 1941; the average age of women was 30·4 in 1931 and again 30·4 in 1941. The changes are thus very small. Other things being equal, a high proportion of first and second births will result in a lower average age of parents. In 1930-32 first and second births were 43 p.c. of the total births. In 1945-47 first and second births together were 58 p.c. of the total. These changes are very great and account for the lower average age of parents.

A number of other facts are shown in Tables 13, 14 and 15. In the first place, the average age of fathers of legitimate children is about four years greater than the average age of mothers. Secondly, the average age of mothers of illegitimate children is about five years less than the average age of mothers of legitimate children; in 1930-32 the difference was six years. The fact that over two-thirds of illegitimate children are born to mothers under 25 years of age accounts for this difference. Thirdly, the average age of mothers of stillborn children is higher than that of live born. Table 15 shows that the rate of stillbirths per 1,000 live births increases with age of the mother. It is more than twice as high among mothers of 40-44 years as it is among mothers of 20-24, and over three times as high among mothers of 45-49.

### 13.—Legitimate Live Births, by Ages of Parents, 1945-47

Age Group	1945		1946		1947		1945		1946		1947	
	FATHERS						MOTHERS					
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
Under 20 years.....	2,020	0·7	2,278	0·7	2,215	0·6	13,361	4·8	15,535	4·9	18,343	5·3
20 - 24 ".....	34,301	12·4	43,530	13·7	51,262	14·9	73,534	26·7	87,624	27·6	98,697	28·7
25 - 29 ".....	69,491	25·2	85,111	26·8	97,858	28·4	80,613	29·2	95,400	30·1	104,810	30·4
30 - 34 ".....	72,314	26·2	81,656	25·8	86,886	25·2	60,467	21·9	67,573	21·3	70,647	20·5
35 - 39 ".....	51,866	18·8	56,308	17·8	57,935	16·8	35,074	12·7	37,660	11·9	38,664	11·2
40 - 44 ".....	27,748	10·1	29,619	9·3	30,187	8·8	11,440	4·2	12,021	3·8	12,232	3·6
45 - 49 ".....	11,897	4·3	12,375	3·9	12,222	3·5	1,103	0·4	1,168	0·4	1,025	0·3
50 years or over.....	6,003	2·2	6,133	1·9	5,908	1·7	20	--	9	--	16	--
Totals, Stated Ages....	275,640	100·0	317,010	100·0	344,473	100·0	275,612	100·0	316,990	100·0	344,434	100·0
Ages not stated.....	153	--	127	--	83	--	181	--	147	--	122	--
Totals, All Ages.....	275,793	100·0	317,137	100·0	344,556	100·0	275,793	100·0	317,137	100·0	344,556	100·0
Average Ages.....	32·9		32·5		32·1		28·8		28·6		28·3	

### 14.—Illegitimate Live Births, by Age of the Mother, 1944-47

Age Group	1944		1945		1946		1947	
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
Under 20 years.....	3,436	30·4	3,573	29·2	3,892	30·1	4,179	30·1
20 - 24 ".....	4,461	39·5	4,896	40·0	5,213	40·3	5,273	38·0
25 - 29 ".....	1,925	17·0	2,105	17·2	2,135	16·5	2,441	17·6
30 - 34 ".....	871	7·7	968	7·9	958	7·4	1,179	8·5
35 - 39 ".....	458	4·1	526	4·3	554	4·3	600	4·3
40 - 44 ".....	137	1·2	158	1·3	167	1·3	185	1·3
45 - 49 ".....	13	0·1	17	0·1	15	0·1	21	0·2
50 years or over.....	1	--	—	...	3	--	—	...
<b>Totals, Stated Ages....</b>	<b>11,302</b>	<b>100·0</b>	<b>12,243</b>	<b>100·0</b>	<b>12,937</b>	<b>100·0</b>	<b>13,878</b>	<b>100·0</b>
Ages not stated.....	777	--	694	--	653	--	660	--
<b>Totals, All Ages.....</b>	<b>12,079</b>	<b>100·0</b>	<b>12,937</b>	<b>100·0</b>	<b>13,595</b>	<b>100·0</b>	<b>14,538</b>	<b>100·0</b>
Average Ages of Mothers..	23·9		24·0		23·9		24·1	

**15.—Stillbirths by Age of the Mother, together with Rates per 1,000 Live Births, 1944-47**

Age Group	Stillbirths								Rates per 1,000 Live Births			
	1944		1945		1946		1947		1944	1945	1946	1947
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.				
Under 20 years.....	306	4.6	332	5.0	404	5.7	404	5.4	18.1	19.6	20.8	17.9
20 - 24 ".....	1,496	22.5	1,431	21.6	1,614	22.8	1,725	23.3	19.1	18.2	17.4	16.6
25 - 29 ".....	1,631	24.5	1,609	24.3	1,833	25.9	1,920	25.9	19.8	19.5	18.8	17.9
30 - 34 ".....	1,502	22.6	1,502	22.7	1,511	21.3	1,555	21.0	25.1	24.4	22.0	21.6
35 - 39 ".....	1,127	17.0	1,132	17.1	1,105	15.6	1,205	16.3	33.4	31.8	28.9	30.7
40 - 44 ".....	504	7.6	547	8.3	541	7.6	549	7.4	44.9	47.2	44.4	44.2
45 - 49 ".....	77	1.2	74	1.1	76	1.1	54	0.7	76.8	66.1	64.2	51.6
50 years or over.....	3	--	1	--	1	--	1	--	--	--	--	--
<b>Totals, Stated Ages....</b>	<b>6,646</b>	<b>100.0</b>	<b>6,628</b>	<b>100.0</b>	<b>7,085</b>	<b>100.0</b>	<b>7,413</b>	<b>100.0</b>	...	...	...	...
Ages not stated.....	59	--	40	--	36	--	48	--	...	...	...	...
<b>Totals, All Ages.....</b>	<b>6,705</b>	<b>100.0</b>	<b>6,668</b>	<b>100.0</b>	<b>7,121</b>	<b>100.0</b>	<b>7,461</b>	<b>100.0</b>	<b>23.6</b>	<b>23.1</b>	<b>21.5</b>	<b>20.8</b>
Average Ages of Mothers	30.2		30.3		29.9		29.8		...	...	...	...

**Order of Birth.**—Tables 16 and 17 show the order of birth of legitimate and illegitimate live-born children according to the age of the mother. In 1947 the proportion of first-born children was 33 p.c. of legitimate live births and 69 p.c. of illegitimate live births.

**16.—Order of Birth of Legitimate Live-Born Children in Canada<sup>1</sup>, by Age of Mother, 1947**

Order of Birth of Child	All Ages	Age of Mother									
		Under 15 Years	15-19	20-24	25-29	30-34	35-39	40-44	45 Years and Over	Age Not Stated	
1st child.....	113,533	15	14,578	51,945	30,675	11,760	3,804	686	34	36	
2nd ".....	85,654	3	3,202	28,654	30,951	16,235	5,650	899	34	26	
3rd ".....	51,730	—	465	11,668	19,288	13,394	5,733	1,122	41	19	
4th ".....	30,452	—	65	4,304	11,134	9,007	4,819	1,049	60	14	
5th ".....	19,120	—	11	1,486	6,209	6,469	3,777	1,009	67	2	
6th ".....	12,644	—	1	480	3,423	4,660	3,137	885	72	6	
7th ".....	8,885	—	—	118	1,724	3,404	2,635	875	68	1	
8th ".....	6,312	—	—	33	786	2,345	2,241	830	72	5	
9th ".....	4,667	—	—	10	329	1,550	1,878	833	65	4	
10th ".....	3,433	—	—	4	123	870	1,560	794	81	1	
11th ".....	2,619	—	—	1	43	470	1,267	765	73	—	
12th ".....	1,935	—	—	—	24	240	859	733	78	1	
13th ".....	1,316	—	—	—	3	99	597	546	71	—	
14th ".....	895	—	—	—	3	45	330	454	63	—	
15th ".....	586	—	—	—	—	26	191	317	52	—	
16th ".....	370	—	—	—	1	10	105	210	44	—	
17th ".....	173	—	—	—	—	—	51	99	23	—	
18th ".....	91	—	—	—	—	1	11	59	20	—	
19th ".....	64	—	—	—	1	—	12	37	14	—	
20th and over.....	44	—	—	—	—	—	5	28	11	—	
Not stated.....	33	—	3	14	3	2	2	2	—	7	
<b>Totals.....</b>	<b>344,556</b>	<b>18</b>	<b>18,325</b>	<b>98,697</b>	<b>104,810</b>	<b>70,647</b>	<b>38,664</b>	<b>12,232</b>	<b>1,041</b>	<b>122</b>	

<sup>1</sup> Exclusive of the Territories.



**17.—Order of Birth of Illegitimate Live-Born Children in Canada,<sup>1</sup> by Age of Mother, 1947**

Order of Birth of Child	All Ages	Age of Mother								Age Not Stated
		Under 15 Years	15-19	20-24	25-29	30-34	35-39	40-44	45 Years or Over	
1st child.....	10,089	78	3,812	3,803	1,161	413	150	47	3	622
2nd ".....	2,059	—	259	975	521	189	78	18	3	16
3rd ".....	892	—	25	324	304	134	89	15	1	—
4th ".....	531	—	—	119	203	133	51	16	5	2
5th ".....	333	—	1	34	126	107	48	14	1	2
6th ".....	217	—	—	13	70	65	49	16	2	2
7th ".....	137	—	—	—	28	57	43	8	—	1
8th ".....	96	—	—	1	13	40	33	8	1	—
9th ".....	64	—	—	—	4	24	23	11	2	—
10th ".....	37	—	—	—	5	7	17	6	1	1
11th ".....	22	—	—	—	1	4	10	6	1	—
12th ".....	13	—	—	—	—	—	3	6	—	—
13th ".....	9	—	—	—	—	1	3	5	—	—
14th ".....	5	—	—	—	—	—	1	4	—	—
15th ".....	—	—	—	—	—	—	—	—	—	—
16th ".....	1	—	—	—	—	—	—	1	—	—
17th ".....	—	—	—	—	—	—	—	—	—	—
18th ".....	4	—	—	—	—	—	—	4	—	—
19th ".....	1	—	—	—	—	—	1	—	—	—
20th and over..	1	—	—	—	—	—	—	—	1	—
Not stated.....	27	—	2	4	5	1	1	—	—	14
<b>Totals.....</b>	<b>14,538</b>	<b>78</b>	<b>4,101</b>	<b>5,273</b>	<b>2,441</b>	<b>1,179</b>	<b>600</b>	<b>185</b>	<b>21</b>	<b>660</b>

<sup>1</sup> Exclusive of the Territories.

**Birthplace of Parents.**—Table 18 shows the numbers and percentages of children whose parents were born in Canada and other countries. The proportion of children born to British-born and to foreign-born parents is decreasing. This is the result of the smaller immigration of recent years.

**18.—Live Births by Nativity of Parents, 1944-47**

Country of Birth of Parents and Year	Numbers			Percentages		
	Father	Mother	Both Parents	Father	Mother	Both Parents
Canada <sup>1</sup> .....1944	234,488	257,638	221,865	82.5	90.7	78.0
.....1945	240,868	262,008	226,931	83.4	90.7	78.6
.....1946	280,169	297,886	259,953	84.7	90.1	78.6
.....1947	307,293	317,762	278,810	85.6	88.5	77.6
Commonwealth (other than Canada) 1944	15,185	10,625	2,170	5.4	3.7	0.8
.....1945	13,828	11,544	1,871	4.8	4.0	0.6
.....1946	16,106	17,261	2,204	4.9	5.2	0.7
.....1947	16,814	24,725	2,511	4.7	6.9	0.7
United States.....1944	7,211	6,273	1,073	2.5	2.2	0.4
.....1945	6,827	6,035	988	2.4	2.1	0.3
.....1946	7,089	6,574	843	2.1	2.0	0.3
.....1947	7,217	6,631	811	2.0	1.8	0.2
Other foreign countries.....1944	15,112	9,102	4,852	5.3	3.2	1.7
.....1945	14,112	8,529	4,265	4.9	3.0	1.5
.....1946	13,639	8,503	3,790	4.1	2.6	1.1
.....1947	13,107	9,434	3,318	3.7	2.6	0.9
Birthplace unspecified.....1944	12,224	582	39	4.3	0.2	—
.....1945	13,095	614	34	4.5	0.2	—
.....1946	13,729	508	15	4.2	0.2	—
.....1947	14,663	542	21	4.1	0.2	—
<b>Totals.....1944</b>	<b>284,220</b>	<b>284,220</b>	<b>229,999</b>	<b>100.0</b>	<b>100.0</b>	<b>80.9</b> <sup>2</sup>
<b>.....1945</b>	<b>288,730</b>	<b>288,730</b>	<b>234,089</b>	<b>100.0</b>	<b>100.0</b>	<b>81.1</b> <sup>2</sup>
<b>.....1946</b>	<b>330,732</b>	<b>330,732</b>	<b>266,805</b>	<b>100.0</b>	<b>100.0</b>	<b>80.7</b> <sup>2</sup>
<b>.....1947</b>	<b>359,094</b>	<b>359,094</b>	<b>285,471</b>	<b>100.0</b>	<b>100.0</b>	<b>79.5</b> <sup>2</sup>

<sup>1</sup> Exclusive of the Territories.

<sup>2</sup> These figures or percentages are of the children whose fathers and mothers were born in the same country. The difference between this figure and the total number of births represents the number of children whose parents were born in different countries.

**Origin of Parents.**—Table 19 shows the numbers and percentages of children born to parents of the principal racial or ethnic groups in Canada. A person's origin is usually traced through the father. For example, if the father is English and the mother French, the person's origin is said to be English. Illegitimate children, however, are usually classified by the origin of their mother, since the origin of the father is seldom known.

Table 19 shows that about 60 p.c. of Canadian children are born to parents who are of the same origin; 40 p.c. are born to parents of different origins. A certain amount of this inter-mixture has no doubt been going on for many years.

**19.—Live Births to Parents of Specified Origins, for Canada,<sup>1</sup> 1944-47**

Origin of Parents and Year	Numbers			Percentages		
	Father	Mother	Both Parents	Father	Mother	Both Parents
English.....	1944 56,138	59,551	32,908	19.8	21.0	11.6
	1945 54,711	59,412	31,522	18.9	20.6	10.9
	1946 69,421	75,423	40,130	21.0	22.8	12.1
	1947 78,247	86,078	45,109	21.8	24.0	12.6
Irish.....	1944 25,438	25,631	8,492	9.0	9.0	3.0
	1945 25,871	26,069	8,521	9.0	9.0	3.0
	1946 31,953	31,863	9,879	9.7	9.6	3.0
	1947 36,003	35,567	10,742	10.0	9.9	3.0
Scottish.....	1944 26,263	27,058	8,787	9.2	9.5	3.1
	1945 26,575	27,490	8,851	9.2	9.5	3.1
	1946 33,874	34,138	10,963	10.2	10.3	3.3
	1947 38,029	38,110	11,852	10.6	10.6	3.3
French.....	1944 112,087	117,576	104,672	39.4	41.4	36.8
	1945 115,218	120,212	107,431	39.9	41.6	37.2
	1946 123,555	128,591	113,235	37.4	38.9	34.2
	1947 128,853	133,000	116,410	35.9	37.0	32.4
Other origins.....	1944 51,764	53,402	28,861	18.2	18.8	10.2
	1945 53,156	54,839	29,272	18.4	19.0	10.1
	1946 53,088	60,078	29,745	17.6	18.2	9.0
	1947 63,224	65,673	30,662	17.6	18.3	8.5
Origin unspecified.....	1944 12,530	1,002	226	4.4	0.4	0.1
	1945 13,199	708	70	4.6	0.2	--
	1946 13,341	639	69	4.2	0.2	--
	1947 14,738	666	62	4.1	0.2	--
<b>Totals.....</b>	<b>1944 284,220</b>	<b>284,220</b>	<b>183,946<sup>2</sup></b>	<b>100.0</b>	<b>100.0</b>	<b>64.7<sup>2</sup></b>
	<b>1945 288,730</b>	<b>288,730</b>	<b>185,667<sup>2</sup></b>	<b>100.0</b>	<b>100.0</b>	<b>64.3<sup>2</sup></b>
	<b>1946 330,732</b>	<b>330,732</b>	<b>204,021<sup>2</sup></b>	<b>100.0</b>	<b>100.0</b>	<b>61.7<sup>2</sup></b>
	<b>1947 359,094</b>	<b>359,094</b>	<b>214,867<sup>2</sup></b>	<b>100.0</b>	<b>100.0</b>	<b>59.8<sup>2</sup></b>

<sup>1</sup> Exclusive of the Territories.

<sup>2</sup> These figures or percentages are of children whose fathers and mothers are of the same origin. The difference between this figure and the total number of births represents the number of children whose parents are of different origins.

## Section 4.—Deaths

Except for wars and their after-effects — military and civilian deaths in the First and Second World Wars must be counted in tens of millions — impressive declines in the death rate have been recorded during the past century in many countries of the world.

## Subsection 1.—General Mortality

**International Comparisons.**—A comparison of the death rates in Canada and the provinces with those of other countries is shown in Table 20.

**20.—Death Rates per 1,000 Population of various Countries of the World compared with Canada and the Provinces for recent years**

(Sources: Monthly Bulletin of Statistics of the United Nations and other official publications. In certain cases final figures are not available and provisional data are used.)

Country or Province	Year	Death Rate	Country	Year	Death Rate
Netherlands.....	1947	8.1	Newfoundland and Labrador....	1946	10.4
Union of South Africa (Whites)....	1947	8.7	Sweden.....	1947	10.8
Panama.....	1947	9.1	Switzerland.....	1947	11.3
Norway.....	1946	9.2	Italy.....	1947	11.4
<b>Canada</b> .....	<b>1947</b>	<b>9.4</b>	England and Wales.....	1947	12.0
Saskatchewan.....	1947	7.9	Spain.....	1947	12.0
Alberta.....	1947	8.0	Hungary.....	1947	12.1
Manitoba.....	1947	9.1	Palestine.....	1946	12.3
Quebec.....	1947	9.1	Northern Ireland.....	1947	12.6
Nova Scotia.....	1947	9.7	Scotland.....	1947	12.9
New Brunswick.....	1947	9.8	Austria.....	1947	13.0
Ontario.....	1947	9.9	France.....	1947	13.0
British Columbia.....	1947	10.2	Belgium.....	1947	13.3
Prince Edward Island.....	1947	10.9	Bulgaria.....	1947	13.4
New Zealand (excluding Maoris)....	1947	9.4	Ceylon.....	1947	14.3
Iceland.....	1944	9.6	Ireland.....	1947	14.9
Australia.....	1947	9.7	El Salvador.....	1947	15.0
Denmark.....	1947	9.7	Chile.....	1947	16.7
United States.....	1947	10.1	Roumania.....	1947	21.1

**Canadian Mortality.**—Since 1931, the Canadian death rate has fluctuated between 10.3 and 9.4 per 1,000. It has been more or less stable in Ontario, has been falling in the Maritimes and Quebec and has been rising slightly in the Prairie Provinces and British Columbia. The low death rates in the Prairie Provinces are partly due to their younger average population. The slow rise in the death rates of these provinces in the last few years is due to the increasing proportion of people in the older age groups.

Throughout Table 21, with one exception (Prince Edward Island death rates of 1945) the death rates are higher for males than for females.

**21.—Deaths and Death Rates per 1,000 Population, by Sex and by Provinces, 1944-47, with Averages, 1941-45**

Province and Year	Total Deaths	Rate per 1,000 Population	Males		Females	
			Number of Deaths	Rate per 1,000 Males	Number of Deaths	Rate per 1,000 Females
Prince Edward Island.....Av. 1941-45	967	10.5	510	10.7	457	10.4
1944	926	10.2	488	10.4	438	10.0
1945	888	9.7	455	9.5	433	9.8
1946	874	9.3	476	9.8	398	8.7
1947	1,020	10.9	543	11.3	477	10.4
Nova Scotia.....Av. 1941-45	6,313	10.5	3,438	11.2	2,875	9.8
1944	6,229	10.2	3,362	10.7	2,867	9.6
1945	5,625	9.1	3,090	9.8	2,535	8.3
1946	6,046	9.9	3,266	10.5	2,780	9.3
1947	6,009	9.7	3,287	10.4	2,722	8.9

21.—Deaths and Death Rates per 1,000 Population, by Sex and by Provinces, 1944-47, with Averages, 1941-45—concluded

Province and Year	Total Deaths	Rate per 1,000 Population	Males		Females	
			Number of Deaths	Rate per 1,000 Males	Number of Deaths	Rate per 1,000 Females
New Brunswick.....Av. 1941-45	5,009	10.8	2,704	11.4	2,304	10.2
1944	5,131	11.1	2,772	11.7	2,359	10.5
1945	4,865	10.4	2,635	11.0	2,230	9.8
1946	4,866	10.1	2,611	10.7	2,255	9.6
1947	4,832	9.8	2,696	10.8	2,136	8.8
Quebec.....Av. 1941-45	34,312	10.0	18,435	10.6	15,877	9.2
1944	34,813	9.9	18,569	10.6	16,244	9.3
1945	33,348	9.4	18,002	10.1	15,346	8.6
1946	33,690	9.3	18,062	9.9	15,628	8.6
1947	33,708	9.1	18,566	10.0	15,142	8.2
Ontario.....Av. 1941-45	39,715	10.2	21,632	10.9	18,083	9.4
1944	39,781	10.0	21,629	10.8	18,152	9.3
1945	39,499	9.9	21,563	10.7	17,936	9.0
1946	39,758	9.7	21,849	10.6	17,909	8.8
1947	41,619	9.9	22,891	10.8	18,728	9.0
Manitoba.....Av. 1941-45	6,601	9.0	3,802	10.1	2,799	8.0
1944	6,701	9.2	3,837	10.1	2,864	8.1
1945	6,550	8.9	3,775	9.9	2,775	7.8
1946	6,537	9.0	3,735	10.0	2,802	7.9
1947	6,750	9.1	3,924	10.3	2,826	7.8
Saskatchewan.....Av. 1941-45	6,504	7.6	3,879	8.5	2,625	6.6
1944	6,454	7.6	3,830	8.4	2,624	6.7
1945	6,429	7.6	3,867	8.5	2,562	6.5
1946	6,422	7.7	3,866	8.7	2,556	6.5
1947	6,610	7.9	3,989	8.9	2,621	6.6
Alberta.....Av. 1941-45	6,346	7.9	3,857	9.0	2,489	6.7
1944	6,320	7.7	3,823	8.7	2,497	6.6
1945	6,454	7.8	3,907	8.9	2,547	6.6
1946	6,601	8.2	4,049	9.5	2,552	6.7
1947	6,543	8.0	3,916	9.0	2,627	6.8
British Columbia.....Av. 1941-45	9,330	10.4	5,811	12.4	3,519	8.3
1944	9,697	10.4	6,003	12.4	3,694	8.3
1945	9,756	10.3	6,067	12.3	3,699	8.1
1946	10,137	10.1	6,245	12.0	3,892	8.1
1947	10,613	10.2	6,626	12.2	3,987	7.9
Canada (Exclusive of the Territories).....Av. 1941-45	115,097	9.8	64,068	10.6	51,029	8.9
1944	116,052	9.7	64,313	10.5	51,739	8.9
1945	113,414	9.4	63,351	10.3	50,063	8.4
1946	114,931	9.4	64,159	10.3	50,772	8.4
1947	117,704	9.4	66,438	10.4	51,266	8.3

**Deaths in Urban Centres.**—In Table 22 deaths are classified by place of residence. The death rates in urban centres vary only slightly from the death rates of their respective provinces. However, due to the influx of young people from the rural areas, the age distribution of the population in urban centres is often more favourable to a low death rate than that of the province as a whole.



**22.—Deaths in Urban Centres of 10,000 Population or Over, 1944-47, with  
Averages, 1941-45**

Province and Urban Centre	Census Population, 1941	Deaths				
		Average, 1941-45	1944	1945	1946	1947
	No.	No.	No.	No.	No.	No.
<b>Prince Edward Island—</b>						
Charlottetown.....	14,821	202	221	223	162	219
<b>Nova Scotia—</b>						
Dartmouth.....	10,847	120	129	132	106	86
Glace Bay.....	25,147	231	238	227	232	208
Halifax.....	70,488	786	775	655	773	757
Sydney.....	28,305	306	317	283	326	303
Truro.....	10,272	107	95	112	112	96
<b>New Brunswick—</b>						
Fredericton.....	10,062	121	112	150 <sup>1</sup>	116 <sup>1</sup>	139 <sup>1</sup>
Moncton.....	22,763	223	212	209	222	201
Saint John.....	51,741	645	700	579	627	662
<b>Quebec—</b>						
Cap-de-la-Madeleine.....	11,961	97	95	117	114	112
Chicoutimi.....	16,040	184	165	192	191	220
Drummondville.....	10,555	91	105	99	100	102
Granby.....	14,197	132	129	148	157	150
Hull.....	32,947	355	362	385	383	346
Joliette.....	12,740	157	163	134	171	152
Jonquière.....	13,769	157	150	174	143	153
Lachine.....	20,051	230	242	237	232	210
Lévis.....	11,991	125	119	118	119	133
Montreal.....	903,007	9,885	10,059	9,480	9,786	9,696
Outremont.....	30,751	287	287	287	294	296
Quebec.....	150,757	1,899	1,956	1,990	1,827	1,809
St. Hyacinthe.....	17,798	256	283	264	264	264
St. Jean.....	13,646	136	151	130	142	154
St. Jérôme.....	11,329	118	122	139	135	125
Shawinigan Falls.....	20,325	176	161	175	180	173
Sherbrooke.....	35,965	381	445	401	414	456
Sorel.....	12,251	168	152	170	163	166
Thetford Mines.....	12,716	148	165	134	143	157
Three Rivers.....	42,007	414	408	403	394	378
Valleyfield.....	17,052	184	189	179	175	169
Verdun.....	67,349	532	591	555	524	596
Westmount.....	26,047	275	261	290	279	275
<b>Ontario—</b>						
Bellefonte.....	15,710	178	171	197	195	195
Brantford.....	31,948	419	438	402	374	408
Brockville.....	11,342	158	161	162	149	163
Chatham.....	17,369	219	214	242	214	202
Cornwall.....	14,117	204	197	201	192	193
Forest Hill.....	11,757	62	72	78	70	96
Fort William.....	30,585	244	253	234	280	284
Galt.....	15,346	172	159	175	194	166
Guelph.....	23,273	271	268	276	263	245
Hamilton.....	166,337	1,769	1,763	1,716	1,637	1,776
Kingston.....	30,126	377	823	374	396	366
Kitchener.....	35,657	331	329	333	347	329
London.....	78,264	930	948	946	953	1,033
Niagara Falls.....	20,589	217	222	217	206	235
North Bay.....	15,599	141	142	178	129	179
Oshawa.....	26,813	218	206	217	213	266
Ottawa.....	154,951	1,718	1,719	1,695	1,729	1,759
Owen Sound.....	14,002	185	181	182	167	199
Pembroke.....	11,159	127	126	142	108	138
Peterborough.....	25,350	317	325	335	326	348
Port Arthur.....	24,426	250	271	274	268	311
St. Catharines.....	30,275	314	306	319	338	372
St. Thomas.....	17,132	237	248	254	212	240
Sarnia.....	18,734	219	207	237	223	234
Sault Ste. Marie.....	25,794	252	262	236	279	269
Stratford.....	17,038	209	181	196	235	218
Sudbury.....	32,203	268	286	267	242	284
Timmins.....	28,790	181	174	182	186	199
Toronto.....	667,457	7,534	7,629	7,565	7,883	7,753
Welland.....	12,500	123	114	127	136	138
Windsor.....	105,311	953	936	954	1,013	1,020
Woodstock.....	12,461	174	172	169	133	165
<b>Manitoba—</b>						
Brandon.....	17,383	165	159	152	181	208
St. Boniface.....	18,157	187	195	195	179	180
Winnipeg.....	221,960	2,155	2,148	2,189	2,185	2,285

<sup>1</sup> Includes Devon.

**22.—Deaths in Urban Centres of 10,000 Population or Over, 1944-47, with Averages, 1941-45—concluded**

Province and Urban Centre	Census Population, 1941	Deaths				
		Average, 1941-45	1944	1945	1946	1947
	No.	No.	No.	No.	No.	No.
<b>Saskatchewan—</b>						
Moose Jaw.....	20,753	212	212	222	214	246
Prince Albert.....	12,508	114	134	121	117	146
Regina.....	58,245	439	463	462	498	514
Saskatoon.....	43,027	353	354	370	433	430
<b>Alberta—</b>						
Calgary.....	88,904	878	913	921	996	1,038
Edmonton.....	93,817	830	879	910	1,022	953
Lethbridge.....	14,612	144	132	159	154	146
Medicine Hat.....	10,571	123	143	168	133	130
<b>British Columbia—</b>						
New Westminster.....	21,967	233	254	207	252	261
Vancouver.....	275,353	3,377	3,434	3,500	3,641	3,768
Victoria.....	44,068	688	782	716	742	748

**Sex and Age Distribution of Deaths.**—Despite reductions in infant mortality, more deaths still occur in the first year of life than in any other year. The number of children who die under five years of age has been reduced from an average of 25,174 in 1930-32 to 17,949 in 1940-42. In 1947, owing to the exceptionally large number of births—9 p.c. over 1946—the number rose slightly to 18,947.

The percentage distribution of deaths has changed greatly since 1930-32. The percentages of deaths at all ages up to 50 years have declined, and the percentages at ages over 50 have increased. The average age at death has gradually risen. The reduction in mortality rates in the early and middle years of life increases the number of people in the older age groups and raises the average age of the population as a whole. In 1931, 16.6 p.c. of the population was 50 years of age or over and the average age of all males was 29.0 years and of all females 28.1 years. In 1941, 19.7 p.c. of the population was 50 years of age or over, and the average age of all males had risen to 30.7 years and of all females to 30.2 years. Compared with most European countries, however, the population of Canada is still young.

**23.—Deaths, by Sex and Age Groups, 1946 and 1947**

Age Group	Males				Females			
	1946		1947		1946		1947	
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
Under 1 year.....	8,824	13.8	9,430	14.2	6,610	13.0	6,906	13.5
1 year.....	724	1.1	654	1.0	610	1.2	548	1.1
2 years.....	375	0.6	347	0.5	269	0.5	266	0.5
3 ".....	276	0.4	245	0.4	237	0.5	192	0.4
4 ".....	235	0.4	208	0.3	174	0.3	151	0.3
Totals, Under 5 Years of Age....	10,434	16.3	10,884	16.4	7,900	15.6	8,063	15.7
5-9 years.....	738	1.2	703	1.1	559	1.1	465	0.9
10-14 ".....	576	0.9	523	0.8	406	0.8	359	0.7
15-19 ".....	895	1.4	874	1.3	691	1.4	675	1.3
20-24 ".....	1,127	1.8	1,075	1.6	964	1.9	881	1.7
25-29 ".....	1,034	1.6	1,078	1.6	952	1.9	869	1.7
30-34 ".....	1,059	1.7	1,083	1.6	1,006	2.0	945	1.8
35-39 ".....	1,265	2.0	1,339	2.0	1,108	2.2	1,048	2.0
40-44 ".....	1,689	2.6	1,687	2.5	1,265	2.5	1,210	2.4
45-49 ".....	2,221	3.5	2,435	3.7	1,703	3.4	1,605	3.1
50-54 ".....	3,095	4.8	3,194	4.8	2,153	4.2	2,119	4.1
55-59 ".....	4,441	6.9	4,550	6.8	2,904	5.7	2,778	5.4
60-64 ".....	5,814	9.1	6,021	9.1	3,537	7.0	3,747	7.3
65-69 ".....	6,877	10.7	7,118	10.7	4,579	9.0	4,658	9.1
70-74 ".....	6,880	10.7	7,269	10.9	5,331	10.5	5,506	10.7
75-79 ".....	6,627	10.3	6,776	10.2	5,569	11.0	5,740	11.2
80-89 ".....	8,082	12.6	8,453	12.7	8,449	16.6	8,761	17.1
90 years or over.....	1,251	1.9	1,342	2.0	1,678	3.3	1,824	3.6
Totals, Stated Ages.....	64,105	100.0	66,404	100.0	50,754	100.0	51,253	100.0
Agcs not stated.....	54	--	34	--	18	--	13	--
Totals, All Ages.....	64,159	100.0	66,438	100.0	50,772	100.0	51,266	100.0

**Causes of Death.**—About 91 p.c. of the deaths in Canada are due to the 28 specified causes given in Table 24. About 80 p.c. are due to ten causes: diseases of the heart, cancer, intracranial lesions, violent deaths, nephritis, diseases of early infancy, pneumonia, tuberculosis, influenza and diseases of the arteries.

The classification of the causes of death is according to the revision of the International List of 1938, that was first used in Canada in 1941. Each revision of the International List makes continuity of classification difficult. This applies especially to diseases of the heart, intracranial lesions (cerebral hæmorrhage) and diseases of the arteries.

The rise in the average age at death has been noted on p. 214. Causes of death that affect children and young adults mainly have declined. Diphtheria, for example, has been almost wiped out. Tuberculosis has been greatly reduced. On the other hand, the ageing of the population increases the proportion of deaths from the causes that affect older people mainly. Thus, cancer, nephritis and diseases of the heart now account for a substantially larger proportion of all deaths than formerly.

#### 24.—Deaths and Death Rates per 100,000 Population, by Principal Causes, 1945-47

International List No. <sup>1</sup>	Cause of Death	Numbers of deaths			Rates per 100,000 Population		
		1945	1946	1947	1945	1946	1947
1, 2	Typhoid fever, including paratyphoid . . .	101	91	62	0.8	0.7	0.5
8	Scarlet fever . . . . .	79	58	42	0.7	0.5	0.3
9	Whooping cough . . . . .	470	231	232	3.9	1.9	1.8
10	Diphtheria . . . . .	271	227	140	2.2	1.8	1.1
13	Tuberculosis, respiratory system . . . . .	4,565	4,818	4,616	37.7	39.2	36.8
14-22	Tuberculosis, other organs . . . . .	981	1,003	833	8.1	8.2	6.6
33	Influenza . . . . .	1,087	1,601	1,099	9.0	13.0	8.8
35	Measles . . . . .	97	235	134	0.8	1.9	1.1
45-55	Cancer and other malignant tumours . . . . .	14,439	14,767	15,615	119.3	120.2	124.3
61	Diabetes mellitus . . . . .	2,417	2,409	2,484	20.0	19.6	19.8
73	Anæmias . . . . .	355	311	321	2.9	2.5	2.6
83	Intracranial lesions of vascular origin . . . . .	9,421	9,486	9,583	77.8	77.2	76.3
86	Convulsions (under 5 years of age) . . . . .	134	119	107	1.1	1.0	0.9
90-95	Diseases of the heart . . . . .	29,705	29,854	32,050	245.5	243.1	255.2
96, 97, 99, 102, 106	Diseases of the arteries . . . . .	2,210	2,230	2,374	18.3	18.2	18.9
107-109	Bronchitis . . . . .	394	378	363	3.3	3.1	2.9
119, 120	Pneumonia . . . . .	5,549	5,657	5,688	45.9	46.1	45.3
119, 120	Diarrhoea and enteritis . . . . .	2,019	1,873	1,988	16.7	15.2	15.8
121	Appendicitis . . . . .	677	551	470	5.6	4.5	3.7
122	Hernia, intestinal obstruction . . . . .	863	854	864	7.1	7.0	6.9
130-132	Nephritis . . . . .	6,926	6,822	6,568	57.2	55.5	52.3
137	Diseases of the prostate . . . . .	847	820	841	7.0	6.7	6.7
140-150	Puerperal causes . . . . .	660	595	554	5.5	4.8	4.4
157	Congenital malformations . . . . .	2,134	2,338	2,483	17.6	19.0	19.8
158-161	Diseases peculiar to the first year of life . . . . .	6,394	7,053	7,415	52.8	57.4	59.0
162	Senility . . . . .	1,624	1,584	1,489	13.4	12.9	11.9
163, 164	Suicides . . . . .	764	1,002	948	6.3	8.2	7.5
166-198	Violent deaths (suicides excepted) . . . . .	7,047	7,195	7,666	58.2	58.6	61.0
	Other specified causes . . . . .	10,305	9,995	9,890	85.2	81.4	78.8
	<b>Totals, Specified Causes . . . . .</b>	<b>112,535</b>	<b>114,157</b>	<b>116,919</b>	<b>929.9</b>	<b>929.4</b>	<b>931.0</b>
199, 200	Unspecified or ill-defined causes . . . . .	879	774	806	7.3	6.3	6.4
	<b>Totals, All Causes . . . . .</b>	<b>113,414</b>	<b>114,931</b>	<b>117,725</b>	<b>937.2</b>	<b>935.7</b>	<b>937.5</b>

<sup>1</sup> The numbers given in this column refer to the International List of Causes of Death, as revised in 1938 by the International Commission on the Classification of Diseases and Causes of Death.



### Subsection 2.—Infant Mortality

**International Comparisons.**—New Zealand for many years has had the lowest rate of infant mortality. In 1947 the rate was 25 per 1,000 live births, compared with 68 in 1905, 51 in 1920 and 34 in 1930. Sweden, Iceland and Australia also have very low rates. In England and Wales the rate has been reduced from 128 per 1,000 in 1905 to 60 in 1930 and 42 in 1947. In the United States the rate has been reduced from 162 in 1900 to 47 in 1940 and 32 in 1947. The energy devoted in recent years to reducing infant mortality has resulted in definite improvement in many other countries.

#### 25.—Infant Mortality per 1,000 Live Births in various Countries of the World compared with Canada and the Provinces for recent years

(Sources: Monthly Bulletin of Statistics of the United Nations and other official publications. In certain cases final figures are not available and provisional data are used.)

Country or Province	Year	Infant Mortality Rate	Country	Year	Infant Mortality Rate
New Zealand (excluding Maoris)...	1947	25	Quebec.....	1947	57
Sweden.....	1947	25	New Brunswick.....	1947	59
Australia.....	1947	29	Panama.....	1947	52
United States.....	1947	32	Northern Ireland.....	1947	53
Netherlands.....	1947	34	Scotland.....	1947	56
Union of South Africa (Whites).....	1947	35	France.....	1947	66
Norway.....	1946	37	Ireland.....	1947	67
Iceland.....	1944	38	Belgium.....	1947	69
Switzerland.....	1947	39	Newfoundland and Labrador.....	1946	74
Denmark.....	1947	40	Palestine.....	1946	76
England and Wales.....	1947	42	Spain.....	1947	76
<b>Canada.....</b>	<b>1947</b>	<b>45</b>	Austria.....	1947	78
British Columbia.....	1947	36	Italy.....	1947	82
Ontario.....	1947	36	El Salvador.....	1947	96
Alberta.....	1947	37	Ceylon.....	1947	101
Nova Scotia.....	1947	44	Hungary.....	1947	111
Saskatchewan.....	1947	44	Bulgaria.....	1947	130
Prince Edward Island.....	1947	45	Chile.....	1947	161
Manitoba.....	1947	46	Roumania.....	1947	199

**Canadian Infant Mortality.**—In Canada, the Federal, provincial and municipal health authorities, together with private welfare agencies, have all taken part in the effort, with the result that the figures 1926-47 show a striking improvement. Of the children born in 1942-46, approximately 60,000 lived to their first birthday who would have died at the rate prevailing in the period 1926-30.

Infant mortality of males is 25 to 30 p.c. higher than that of females. It was pointed out earlier that there were between 1,051 and 1,067 males born to every 1,000 females. Because male infant mortality is higher, the excess of males is much less at the end of the first year. For example, in 1940-42, 397,038 male children were born, compared with 374,908 female children, an excess of 22,130 or 5.9 p.c.; 25,024 male children died during their first year compared with 18,646 female children, that is 6,378 more. The excess of males at one year of age is thus 15,752, or 4.4 p.c. By the age of 52, according to the life table, p. 201, the numbers of males and females will have become equal.

Infant mortality figures and rates per 1,000 live births by sex are given for Canada and the provinces in Table 26. The rates vary considerably between the provinces. One of the principal causes of these variations appears to be the different proportions of births which take place in hospitals or under proper medical care. Examples of these differences have been given earlier, see p. 202. Along with increased hospitalization has come better and more wide-spread pre-natal and post-natal care. Other factors, particularly the supervision of water supplies, improved sanitation and the pasteurization of milk also have been important.



26.—Infant Mortality and Rates per 1,000 Live Births, by Sex and by Provinces, 1944-47

Province and Year	Total Infant Deaths	Rate per 1,000 Live Births	Males		Females	
			Number of Infant Deaths	Rate per 1,000 Live Male Births	Number of Infant Deaths	Rate per 1,000 Live Female Births
Prince Edward Island.....1944	102	45	58	50	44	39
1945	102	45	54	46	48	44
1946	97	35	64	44	33	24
1947	135	45	77	50	58	40
Nova Scotia.....1944	838	54	480	60	358	47
1945	823	53	479	59	344	46
1946	822	46	460	50	362	41
1947	840	44	476	49	364	38
New Brunswick.....1944	1,035	77	593	85	442	68
1945	966	71	527	75	439	66
1946	1,066	66	581	70	485	61
1947	1,041	59	622	68	419	49
Quebec.....1944	6,918	68	3,936	75	2,982	60
1945	6,464	62	3,659	68	2,805	55
1946	6,110	55	3,517	61	2,593	48
1947	6,583	57	3,839	65	2,744	49
Ontario.....1944	3,346	43	1,933	48	1,413	38
1945	3,209	41	1,813	44	1,396	37
1946	3,653	37	2,109	42	1,544	33
1947	3,914	36	2,220	40	1,694	32
Manitoba.....1944	786	49	425	51	361	47
1945	781	48	445	53	336	43
1946	885	47	474	49	411	45
1947	931	46	529	51	402	40
Saskatchewan.....1944	858	47	484	52	374	42
1945	824	44	489	50	335	37
1946	1,004	47	581	53	423	40
1947	1,018	44	592	49	426	37
Alberta.....1944	889	46	517	52	372	40
1945	862	43	511	50	351	36
1946	945	43	542	48	403	37
1947	915	37	510	40	405	34
British Columbia.....1944	767	40	445	46	322	35
1945	792	42	450	46	342	37
1946	852	38	496	43	356	32
1947	959	36	565	42	394	31
Canada (Exclusive of the Territories).....1944	15,539	55	8,871	60	6,668	48
1945	14,823	51	8,427	57	6,396	46
1946	15,434	47	8,824	52	6,610	41
1947	16,336	45	9,430	51	6,906	39

**Infant Mortality in Urban Centres.**—Infant mortality rates in individual cities and towns usually vary widely from year to year. Many cities and towns have, however, maintained consistently low rates. Vancouver has a splendid record; Calgary, Toronto and Winnipeg have exceptionally low rates and Montreal has shown steady improvement.

**27.—Deaths and Death Rates of Children Under One Year of Age (Exclusive of Stillbirths), in Urban Centres of 10,000 Population or Over, 1944-47**

Province and Urban Centre	Infant Deaths				Rates per 1,000 Live Births			
	1944	1945	1946	1947	1944	1945	1946	1947
<b>Prince Edward Island—</b>								
Charlottetown.....	26	28	9	12	64	71	19	24
<b>Nova Scotia—</b>								
Dartmouth.....	15	31	15	13	35	72	32	25
Glace Bay.....	60	34	46	42	84	47	53	47
Halifax.....	93	98	95	87	44	48	40	35
Sydney.....	51	52	56	44	54	55	54	41
Truro.....	16	15	17	18	53	55	50	45
<b>New Brunswick—</b>								
Fredericton.....	11	15 <sup>1</sup>	10 <sup>1</sup>	12 <sup>1</sup>	46	52 <sup>1</sup>	25 <sup>1</sup>	25 <sup>1</sup>
Moncton.....	25	22	39	38	35	33	50	43
Saint John.....	80	77	93	98	55	58	55	57
<b>Quebec—</b>								
Cap-de-la-Madeleine.....	15	20	32	21	41	52	71	47
Chicoutimi.....	57	58	76	64	52	64	81	65
Drummondville.....	27	23	16	34	67	60	36	70
Granby.....	14	22	23	33	31	43	38	47
Hull.....	95	82	82	75	79	67	59	52
Joliette.....	28	22	42	18	68	54	96	43
Jonquière.....	58	55	56	56	60	64	77	76
Lachine.....	21	18	26	18	42	34	43	27
Lévis.....	23	24	13	19	66	71	34	51
Montreal.....	1,295	1,150	975	1,110	58	50	40	45
Outremont.....	14	10	8	9	40	32	20	21
Quebec.....	548	619	405	451	119	141	91	100
St. Hyacinthe.....	25	25	22	27	54	60	45	48
St. Jean.....	33	16	20	21	74	35	48	44
St. Jérôme.....	30	24	17	27	66	53	32	46
Shawinigan Falls.....	43	53	47	39	48	55	54	43
Sherbrooke.....	75	80	82	100	64	64	63	68
Sorel.....	31	36	28	31	54	65	62	59
Thetford Mines.....	30	24	22	30	71	59	50	60
Three Rivers.....	100	67	67	82	83	56	53	66
Valleyfield.....	39	33	35	28	55	52	53	42
Verdun.....	71	77	54	89	45	48	30	50
Westmount.....	6	11	14	8	20	40	41	27
<b>Ontario—</b>								
Belleville.....	13	16	23	22	35	41	49	42
Brantford.....	22	36	46	42	29	45	45	39
Brockville.....	16	10	17	11	59	36	57	30
Chatham.....	19	16	13	20	52	39	28	36
Cornwall.....	29	28	22	35	55	54	31	50
Forest Hill.....	3	2	2	4	16	11	14	19
Fort William.....	15	25	27	35	23	37	31	35
Galt.....	11	10	15	15	32	33	33	33
Guelph.....	22	22	25	24	47	48	43	35
Hamilton.....	134	100	145	128	36	29	31	27
Kingston.....	40	29	33	25	46	34	31	24
Kitchener.....	21	17	34	26	32	23	36	25
London.....	72	74	77	92	41	42	34	38
Niagara Falls.....	16	9	11	19	30	17	17	24
North Bay.....	27	16	13	21	70	42	29	41
Oshawa.....	18	19	18	29	31	32	27	39
Ottawa.....	147	134	199	180	42	37	44	40
Owen Sound.....	26	18	24	27	80	64	60	57
Pembroke.....	23	30	11	10	76	99	29	28
Peterborough.....	31	32	24	37	45	42	25	34
Port Arthur.....	19	17	23	41	35	30	33	49
St. Catharines.....	23	25	30	24	29	33	34	24
St. Thomas.....	13	15	17	20	34	41	39	45
Sarnia.....	18	21	13	18	39	41	21	26
Sault Ste. Marie.....	31	28	33	31	43	38	40	34
Stratford.....	15	9	20	17	48	34	50	38
Sudbury.....	98	64	46	63	76	52	37	45
Timmins.....	36	38	30	39	53	51	35	41
Toronto.....	411	373	498	462	36	33	32	30
Welland.....	16	21	16	22	43	65	43	53
Windsor.....	101	89	123	104	42	40	42	34
Woodstock.....	10	10	9	12	42	38	26	34

<sup>1</sup> Includes Devon.

27.—Deaths and Death Rates of Children Under One Year of Age (Exclusive of Stillbirths), in Urban Centres of 10,000 Population or Over, 1944-47—concluded

Province and Urban Centre	Infant Deaths				Rates per 1,000 Live Births			
	1944	1945	1946	1947	1944	1945	1946	1947
<b>Manitoba—</b>								
Brandon.....	16	20	16	22	41	56	41	50
St. Boniface.....	20	18	23	24	42	40	38	35
Winnipeg.....	149	138	186	205	36	32	35	36
<b>Saskatchewan—</b>								
Moose Jaw.....	18	18	31	29	38	40	52	43
Prince Albert.....	23	37	30	26	63	101	69	49
Regina.....	63	51	79	70	55	42	50	38
Saskatoon.....	35	32	84	70	39	35	67	47
<b>Alberta—</b>								
Calgary.....	75	90	101	104	34	40	39	34
Edmonton.....	101	95	130	130	39	34	38	33
Lethbridge.....	12	19	23	12	29	45	48	20
Medicine Hat.....	21	17	18	9	63	57	51	24
<b>British Columbia—</b>								
New Westminster.....	17	18	13	16	34	36	23	26
Vancouver.....	168	171	193	218	29	30	28	28
Victoria.....	36	26	41	26	26	23	34	21

**Infant Mortality by Causes of Death.**—Of the infant deaths that occur in Canada, about 90 p.c. are due to the nine causes and groups of causes specified in Table 28. One cause, premature birth, accounts for over 20 p.c. The rates from nearly all causes are higher for male than for female children; the only exception shown in the table is for communicable diseases in 1944.

28.—Infant Mortality and Rates per 100,000 Live Births, by Principal Causes, 1944-47

International List No.	Cause of Death and Year	Numbers			Rates per 100,000 Live Births			Percentage Distribution by Cause of Death
		Males	Females	Total	Males	Females	Total	
86	Communicable diseases <sup>1</sup> .....1944	582	581	1,163	397	422	409	7.5
	.....1945	548	492	1,040	368	352	360	7.0
	.....1946	552	479	1,031	325	298	312	6.7
	.....1947	526	397	923	286	227	257	5.6
	Convulsions.....1944	62	39	101	42	28	36	0.6
	.....1945	55	47	102	37	34	35	0.7
	.....1946	56	39	95	33	24	29	0.6
	.....1947	46	40	86	25	23	24	0.5
106-109	Bronchitis and pneumonia...1944	1,158	933	2,091	790	678	736	13.5
	.....1945	1,223	977	2,200	821	699	762	14.8
	.....1946	1,163	915	2,078	684	569	628	13.5
	.....1947	1,291	996	2,287	702	569	637	14.0
119	Diarrhoea and enteritis.....1944	1,190	967	2,157	811	703	759	13.9
	.....1945	928	697	1,625	623	499	563	11.0
	.....1946	922	610	1,532	543	379	463	9.9
	.....1947	989	709	1,698	538	405	473	10.4

<sup>1</sup> Includes measles, scarlet fever, whooping cough, diphtheria, influenza, erysipelas, acute poliomyelitis and polioencephalitis, cerebrospinal meningitis, tuberculosis and syphilis.

**28.—Infant Mortality and Rates per 100,000 Live Births, by Principal Causes,  
1944-47—concluded**

Inter- national List No.	Cause of Death and Year	Numbers			Rates per 100,000 Live Births			Per- centage Distri- bution by Cause of Death
		Males	Females	Total	Males	Females	Total	
157	Congenital malformations...1944	957	780	1,737	653	567	611	11.2
	1945	1,069	819	1,888	718	586	654	12.7
	1946	1,142	926	2,068	672	576	625	13.4
	1947	1,174	1,008	2,182	638	576	608	13.4
158	Congenital debility.....1944	525	405	930	358	294	327	6.0
	1945	524	351	875	352	251	303	5.9
	1946	444	339	783	261	211	237	5.1
	1947	388	301	689	211	172	192	4.2
159	Premature birth.....1944	2,072	1,435	3,507	1,413	1,043	1,234	22.6
	1945	1,892	1,434	3,326	1,271	1,026	1,152	22.4
	1946	2,110	1,676	3,786	1,242	1,042	1,145	24.5
	1947	2,369	1,668	4,037	1,288	952	1,124	24.7
160	Injury at birth.....1944	772	432	1,204	526	314	424	7.7
	1945	714	457	1,171	479	327	406	7.9
	1946	852	514	1,366	501	320	413	8.9
	1947	970	586	1,556	527	335	433	9.5
161	Other diseases peculiar to the first year of life.....1944	596	418	1,014	406	304	357	6.5
	1945	595	427	1,022	400	305	354	6.9
	1946	683	435	1,118	402	271	338	7.2
	1947	681	452	1,133	370	258	316	6.9
	Other specified causes.....1944	734	527	1,261	501	383	444	8.1
	1945	657	527	1,184	441	377	410	8.0
	1946	704	501	1,205	414	312	364	7.8
	1947	765	572	1,337	416	327	372	8.2
199, 200	Unspecified or ill-defined causes.....1944	223	151	374	152	110	132	2.4
	1945	222	168	390	149	120	135	2.6
	1946	196	176	372	115	109	112	2.4
	1947	231	177	408	126	101	114	2.5
	<b>Totals, All Causes.....1944</b>	<b>8,871</b>	<b>6,668</b>	<b>15,539</b>	<b>6,049</b>	<b>4,847</b>	<b>5,467</b>	<b>100.0</b>
	<b>1945</b>	<b>8,427</b>	<b>6,396</b>	<b>14,823</b>	<b>5,659</b>	<b>4,575</b>	<b>5,134</b>	<b>100.0</b>
	<b>1946</b>	<b>8,824</b>	<b>6,610</b>	<b>15,434</b>	<b>5,192</b>	<b>4,111</b>	<b>4,667</b>	<b>100.0</b>
	<b>1947</b>	<b>9,430</b>	<b>6,906</b>	<b>16,336</b>	<b>5,126</b>	<b>3,944</b>	<b>4,549</b>	<b>100.0</b>

### Subsection 3.—Maternal Mortality

As in the case of infant mortality, the number of mothers who die in pregnancy and childbirth has been greatly reduced. Maternal mortality in Canada and the provinces is shown in Table 29. Although the number of births has been much greater in recent years, the number of maternal deaths has been well below a thousand a year. The rate of maternal mortality is now less than 2 per 1,000 live births. The last two columns of the table show that mortality among unmarried mothers is much higher than among married mothers.



## 29.—Maternal Deaths and Rates per 1,000 Live Births, by Provinces, 1944-47

Item	MATERNAL DEATHS										Maternal Deaths of Unmarried Mothers	
	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada <sup>1</sup>	No.	P.C. of Total
1944.....	12	33	43	318	198	49	42	31	50	776	48	6.19
1945.....	6	24	25	256	171	31	49	48	50	660	38	5.76
1946.....	6	28	34	229	160	32	36	32	38	595	39	6.55
1947.....	6	20	25	259	129	23	38	22	32	554	34	6.14
	RATES PER 1,000 LIVE BIRTHS										Per 1,000 Illegitimate Live Births	
	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada <sup>1</sup>	No.	P.C. of Total
1944.....	5.2	2.1	3.2	3.1	2.5	3.1	2.3	1.6	2.6	2.7	4.0	
1945.....	2.7	1.5	1.8	2.5	2.2	1.9	2.6	2.4	2.6	2.3	2.9	
1946.....	2.1	1.6	2.1	2.1	1.6	1.7	1.7	1.4	1.7	1.8	2.9	
1947.....	2.0	1.0	1.4	2.2	1.2	1.1	1.6	0.9	1.2	1.5	2.3	

<sup>1</sup> Exclusive of the Territories.

**Age at Death.**—Table 30 shows the distribution of maternal deaths by age, together with the average age at death. The latter is slightly more than two years higher than the average age of all mothers at the time of childbirth. The rates per 1,000 live births by age groups show that age is a most important factor in maternal mortality. Though all the rates are much lower than they used to be, the inequalities between the age groups remain. The rate at 30-34 years is nearly twice as high as the rate at 20-24 years, and above the age of 40 it is over four times as high. The slightly higher rate in the first age group shown in the table, compared with the second, is due to the high proportion of illegitimate children born to young mothers.

## 30.—Maternal Mortality and Rates per 1,000 Live Births, by Age Groups, 1944-47

Age Group	Maternal Deaths								Rates per 1,000 Live Births			
	1944		1945		1946		1947		1944	1945	1946	1947
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.				
Under 20 years.....	30	3.9	28	4.2	27	4.5	24	4.3	1.78	1.65	1.39	1.07
20 - 24 ".....	146	18.8	110	16.7	90	15.1	96	17.3	1.87	1.40	0.97	0.92
25 - 29 ".....	186	24.0	161	24.4	142	23.9	107	19.3	2.26	1.95	1.46	1.00
30 - 34 ".....	200	25.8	136	20.6	130	21.8	144	26.0	3.34	2.21	1.90	2.00
35 - 39 ".....	141	18.2	135	20.5	121	20.3	120	21.7	4.17	3.79	3.17	3.06
40 - 44 ".....	70	9.0	81	12.3	72	12.1	55	9.9	6.23	6.98	5.91	4.43
45 - 49 ".....	3	0.4	8	1.2	13	2.2	8	1.4	2.99	7.14	10.99	7.65
50 years or over.....	—	...	1	0.2	—	...	—	...	...	...	...	...
<b>Totals, All Ages At Death.....</b>	<b>776</b>	<b>100.0</b>	<b>660</b>	<b>100.0</b>	<b>595</b>	<b>100.0</b>	<b>554</b>	<b>100.0</b>	<b>2.73</b>	<b>2.29</b>	<b>1.80</b>	<b>1.54</b>
Average Ages at Death.	30.8		31.5		31.7		31.5		...	...	...	...

**Maternal Deaths by Causes.**—Table 31 shows, by causes, the numbers and rates of maternal deaths per 100,000 live births. Until recently, puerperal sepsis and toxæmias of pregnancy were by far the most important causes. Since the introduction of sulpha drugs in 1936, the rates from these two causes have decreased by 50 p.c.

**31.—Maternal Mortality and Rates per 100,000 Live Births, by Causes of Death, 1945-47**

Inter- national List No.	Cause of Death	Numbers of Deaths			Rates per 100,000 Live Births		
		1945	1946	1947	1945	1946	1947
140	Abortion with mention of infection.....	52	41	43	18.0	12.4	12.0
141	Abortion without mention of infection....	18	39	36	6.2	11.8	10.0
142	Ectopic gestation.....	23	28	15	8.0	8.5	4.2
143	Hæmorrhage of pregnancy—death prior to delivery.....	12	8	4	4.2	2.4	1.1
144	Toxæmias of pregnancy—death prior to delivery.....	32	32	27	11.1	9.7	7.5
145	Other diseases and accidents of preg- nancy—death prior to delivery.....	18	35	24	6.2	10.6	6.7
146	Hæmorrhage of childbirth and the puer- perium.....	124	103	136	42.9	31.1	37.9
147	Infection during childbirth and the puer- perium.....	178	122	93	61.6	36.9	25.9
148	Puerperal toxæmias—death following delivery.....	94	88	81	32.6	26.6	22.6
149	Other accidents of childbirth.....	65	61	57	22.5	18.4	15.9
150	Other and unspecified conditions of child- birth and the puerperal state.....	44	38	38	15.2	11.5	10.6
<b>Totals, All Causes.....</b>		<b>660</b>	<b>595</b>	<b>554</b>	<b>228.6</b>	<b>179.9</b>	<b>154.3</b>

## Section 5.—Communicable Diseases

The national reporting of communicable diseases in Canada was undertaken, in 1933, by the Dominion Bureau of Statistics, at the request of the Federal Department of Pensions and National Health in co-operation with the Provincial Departments of Health. Since then, the Vital Statistics Section of the Bureau has been responsible for the weekly compilation and analysis of communicable diseases except for a short period during 1939-40, when the work was transferred to the Department of Pensions and National Health. The reports of cases of venereal diseases are included in the current analyses and a standard report form is used by all the provinces.

Table 32 shows the number of cases of certain communicable diseases reported to the Dominion Bureau of Statistics by the Provincial Departments of Health in 1947. The reporting of two diseases, dysentery and rubella, is not compulsory in all provinces. The totals for Canada, therefore, should be accepted with caution.

### 32.—Cases of Certain Communicable Diseases reported by Provincial Health Departments, 1947

Disease	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada <sup>1</sup>
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Chickenpox.....	10	1,261	58	7,775	13,189	1,415	1,742	2,877	4,110	32,437
Diphtheria.....	7	75	24	946	235	78	46	105	34	1,550
Dysentery.....	—	6 <sup>5</sup>	2	103	97 <sup>6</sup>	19	—	—	42 <sup>6</sup>	267
Amoebic.....	—	1	2	—	87	12	—	—	—	100
Bacillary.....	—	—	2	103	6	7	—	—	38	154
Encephalitis (infectious)...	—	—	1	1	5	80	67	4	1	159
Influenza (epidemic).....	36	1,776	—	—	647	157	17	—	3,537	6,170
Measles.....	78	2,304	101	5,901	7,146	6,946	2,798	4,853	9,328	39,455
Meningitis (meningococcal)...	1	17	8	38	60	16	16	15	22	193
Mumps.....	—	951	12	3,096	17,133	1,504	3,644	1,089	4,823	32,252
Poliomyelitis (epidemic)...	2	71	20	144	796	587	277	82	312	2,291
Rubella <sup>3</sup> .....	—	32	—	816	1,440	39	211	279	273	3,090
Scarlet fever.....	15	177	473	2,630	3,281	226	101	237	352	7,492
Tuberculosis.....	247	232 <sup>7</sup>	751	5,407	1,454	1,577	524 <sup>8</sup>	1,003	2,544	13,739
Pulmonary.....	4	219	751	5,159	4	1,566	415	1,000	2,363	11,473
Non-pulmonary.....	4	11	—	248	4	11	98	3	181	552
Typhoid and paratyphoid.....	—	13	30	394	101	9	21	26	103	697
Undulant fever.....	—	2	—	175	103	7	5	40	51	383
Veneral diseases.....	182	1,371	952	9,825	8,147	2,533	1,750	2,729	5,987	33,476
Syphilis.....	66	553	303	3,998	3,283	608	469	472	1,775	11,527
Gonorrhoea.....	116	816	649	5,820	4,864	1,925	1,278	2,257	4,039	21,764
Other.....	—	2	—	7	—	—	3	—	173	185
Whooping cough.....	—	194	112	1,898	4,092	1,244	243	960	1,581	10,324

<sup>1</sup> Exclusive of the Territories.      <sup>2</sup> Not reportable in New Brunswick.      <sup>3</sup> Reporting not compulsory in New Brunswick and Manitoba.      <sup>4</sup> Type not segregated.      <sup>5</sup> Including 5 cases where type was not stated.      <sup>6</sup> Including 4 cases where type was not stated.      <sup>7</sup> Including 2 cases where type was not stated.      <sup>8</sup> Including 11 cases where type was not stated.

## Section 6.—Natural Increase

In 1926-30 the rate of natural increase in Canada (excess of births over deaths) was 13 per 1,000 population. It fell to 9.7 in 1937. Owing partly to the depression, the birth rate declined more than the death rate. Since then the rate has increased to 12.6 in 1940-42, 14.5 in 1945, 17.5 in 1946 and 19.2 in 1947.

The rates of natural increase in the provinces followed generally the rate for Canada as a whole. In earlier years, Saskatchewan and Quebec had the highest rates. The high rates in all the Prairie Provinces were due partly to their relatively younger populations and consequent very low death rates. In Quebec, on the other hand, the death rate in 1926-30 was high; it has declined steadily since. In 1947, New Brunswick had the highest rate of natural increase in Canada.

Table 33 shows the numbers and rates of natural increase by sex in Canada and the provinces. In almost all cases, the rates are higher for females than for males. The primary reason for this is that the death rates for males is generally higher than for females. Further, in the case of the Western Provinces, the ratio of males to females in the population, upon which the birth rates are based, are relatively higher than the ratio of male to female births—hence the birth rates for males are lower than for females.

In a country with a fairly young population such as Canada, in which immigration has been large, an excess of males is to be expected. The higher rate of natural increase for females is the means by which this excess is gradually reduced. Eventually, there will, no doubt, be an excess of females in the total population as there now is in most European countries.

### 33.—Natural Increase and Rates of Natural Increase, by Sex and by Provinces, 1944-47

Province and Year	Excess of Births Over Deaths	Rate per 1,000 Popu- lation	Males		Females	
			Number	Rate per 1,000 Males	Number	Rate per 1,000 Females
Prince Edward Island.....	1944 1,360	14.9	670	14.2	690	15.6
	1945 1,370	14.8	712	14.9	658	14.9
	1946 1,919	20.4	968	20.0	951	20.9
	1947 1,972	20.9	989	20.5	983	21.5
Nova Scotia.....	1944 9,369	15.3	4,698	15.1	4,671	15.6
	1945 9,902	15.9	4,996	15.8	4,906	16.1
	1946 11,868	19.4	5,867	18.8	6,001	20.0
	1947 13,256	21.3	6,484	20.6	6,772	22.2
New Brunswick.....	1944 8,336	18.0	4,177	17.6	4,159	18.5
	1945 8,828	18.9	4,364	18.2	4,464	19.5
	1946 11,408	23.8	5,682	23.2	5,726	24.3
	1947 12,939	26.4	6,438	25.8	6,501	26.9
Quebec.....	1944 67,449	19.3	34,104	19.4	33,345	19.2
	1945 70,935	19.9	35,580	19.9	35,355	20.0
	1946 77,595	21.4	39,218	21.5	38,377	21.2
	1947 81,845	22.0	40,827	21.9	41,018	22.2
Ontario.....	1944 38,309	9.7	18,826	9.4	19,483	9.9
	1945 39,475	9.8	19,254	9.5	20,221	10.2
	1946 57,688	14.1	28,536	13.8	29,152	14.3
	1947 67,234	16.1	32,825	15.5	34,409	16.6
Manitoba.....	1944 9,307	12.7	4,487	11.8	4,820	13.7
	1945 9,703	13.2	4,650	12.3	5,053	14.2
	1946 12,257	16.9	5,910	15.8	6,347	17.9
	1947 13,659	18.4	6,450	17.0	7,209	19.8
Saskatchewan.....	1944 11,684	13.8	5,500	12.1	6,184	15.8
	1945 12,497	14.8	5,927	13.1	6,570	16.8
	1946 15,011	18.0	7,108	16.1	7,903	20.2
	1947 16,724	19.8	7,979	17.9	8,745	22.1
Alberta.....	1944 13,052	16.0	6,155	14.1	6,897	18.1
	1945 13,485	16.3	6,408	14.6	7,077	18.3
	1946 15,583	19.4	7,253	17.1	8,330	22.0
	1947 18,088	22.0	8,764	20.2	9,324	24.0
British Columbia.....	1944 9,302	10.0	3,722	7.6	5,580	12.5
	1945 9,121	9.6	3,670	7.5	5,451	11.9
	1946 12,472	12.4	5,244	10.1	7,228	15.0
	1947 15,673	15.0	6,779	12.5	8,894	17.7
<b>Canada (Exclusive of the Territories).....</b>	<b>1944 168,168</b>	<b>14.1</b>	<b>82,339</b>	<b>13.5</b>	<b>85,829</b>	<b>14.7</b>
	<b>1945 175,316</b>	<b>14.5</b>	<b>85,561</b>	<b>13.8</b>	<b>89,755</b>	<b>15.2</b>
	<b>1946 215,801</b>	<b>17.5</b>	<b>105,786</b>	<b>16.9</b>	<b>110,015</b>	<b>18.2</b>
	<b>1947 241,390</b>	<b>19.2</b>	<b>117,535</b>	<b>18.4</b>	<b>123,855</b>	<b>20.1</b>

**Natural Increase in Urban Centres.**—The classification of births and deaths by place of residence makes it possible to calculate rates of natural increase for urban centres; the figures are given in Table 34. In most of the larger cities the rate is lower than in their respective provinces. Urban population is also increased by the influx of people from the rural areas.



## 34.—Natural Increase in Urban Centres of 10,000 Population or Over, 1944-47, with Averages, 1941-45

Province and Urban Centre	Census Population 1941	Natural Increase				
		Average 1941-45	1944	1945	1946	1947
<b>Prince Edward Island—</b>						
Charlottetown.....	14,821	183	186	172	317	287
<b>Nova Scotia—</b>						
Dartmouth.....	10,847	285	301	298	368	431
Glace Bay.....	25,147	498	480	491	631	690
Halifax.....	70,488	1,241	1,319	1,389	1,579	1,760
Sydney.....	28,305	624	636	657	709	768
Truro.....	10,272	185	208	162	230	300
<b>New Brunswick—</b>						
Fredericton.....	10,062	107	125	137 <sup>1</sup>	279 <sup>1</sup>	343 <sup>1</sup>
Moncton.....	22,763	421	509	458	552	675
Saint John.....	51,741	719	745	743	1,055	1,072
<b>Quebec—</b>						
Cap-de-la-Madeleine.....	11,961	274	268	271	335	333
Chicoutimi.....	16,040	706	926	712	745	768
Drummondville.....	10,555	279	298	286	348	383
Granby.....	14,197	332	322	367	449	550
Hull.....	32,947	819	847	844	1,000	1,108
Joliette.....	12,749	250	248	272	267	263
Jonquière.....	13,769	705	818	687	586	587
Lachine.....	20,051	271	262	297	377	459
Lévis.....	11,991	203	231	221	267	241
Montreal.....	903,007	11,471	12,166	13,295	14,313	14,950
Outremont.....	30,751	44	66	29	110	137
Quebec.....	150,757	2,416	2,649	2,412	2,630	2,681
St. Hyacinthe.....	17,798	163	176	153	223	296
St. Jean.....	13,646	279	295	327	271	326
St. Jérôme.....	11,329	311	336	315	395	461
Shawinigan Falls.....	20,325	674	735	782	687	736
Sherbrooke.....	35,065	760	721	855	895	1,022
Sorel.....	12,251	312	420	380	291	359
Thetford Mines.....	12,716	269	258	275	294	341
Three Rivers.....	42,007	821	791	796	861	857
Valleyfield.....	17,052	481	514	452	485	491
Verdun.....	67,349	988	988	1,033	1,302	1,179
Westmount.....	26,047	-24	44	-15	66	22
<b>Ontario—</b>						
Belleville.....	15,710	205	198	194	274	324
Brantford.....	31,948	346	319	395	642	675
Brockville.....	11,842	102	110	114	148	201
Chatham.....	17,869	193	148	171	258	352
Cornwall.....	14,117	302	329	315	509	505
Forest Hill.....	11,757	96	111	110	73	113
Fort William.....	30,585	404	400	434	583	702
Galt.....	15,346	140	183	124	266	291
Guelph.....	23,273	198	198	180	317	448
Hamilton.....	166,337	1,693	1,913	1,773	2,986	2,918
Kingston.....	30,126	467	493	468	685	675
Kitchener.....	35,657	380	330	410	589	722
London.....	78,264	759	787	828	1,283	1,392
Niagara Falls.....	20,589	323	311	310	448	551
North Bay.....	15,599	221	243	205	326	330
Oshawa.....	26,813	366	373	376	462	471
Ottawa.....	154,951	1,639	1,773	1,914	2,789	2,773
Owen Sound.....	14,002	130	143	100	235	277
Pembroke.....	11,159	172	177	160	266	220
Peterborough.....	25,350	363	357	424	644	744
Port Arthur.....	24,426	308	267	286	423	520
St. Catharines.....	30,275	420	484	438	557	632
St. Thomas.....	17,132	145	134	114	221	204
Sarnia.....	18,734	228	258	272	377	467
Sault Ste. Marie.....	25,794	473	464	508	549	650
Stratford.....	17,038	79	133	69	164	227
Sudbury.....	32,203	1,056	996	970	988	1,124
Timmins.....	28,790	652	509	569	665	754
Toronto.....	667,457	3,629	3,707	3,795	7,565	7,508

<sup>1</sup> Includes Devon.

### 34.—Natural Increase in Urban Centres of 10,000 Population or Over, 1944-47, with Averages, 1941-45—concluded

Province and Urban Centre	Census Population 1941	Natural Increase				
		Average 1941-45	1944	1945	1946	1947
<b>Ontario—concluded</b>						
Welland.....	12,500	234	255	196	239	274
Windsor.....	105,311	1,430	1,490	1,294	1,894	2,007
Woodstock.....	12,461	93	64	96	209	184
<b>Manitoba—</b>						
Brandon.....	17,383	191	220	203	214	230
St. Boniface.....	18,157	238	276	253	424	507
Winnipeg.....	221,960	1,932	2,017	2,087	3,106	3,352
<b>Saskatchewan—</b>						
Moose Jaw.....	20,753	250	258	232	377	432
Prince Albert.....	12,508	226	231	247	320	390
Regina.....	58,245	733	692	743	1,074	1,309
Saskatoon.....	43,027	490	545	537	813	1,051
<b>Alberta—</b>						
Calgary.....	88,904	1,180	1,277	1,310	1,563	2,031
Edmonton.....	93,817	1,549	1,686	1,883	2,409	3,046
Lethbridge.....	14,612	228	277	262	329	442
Medicine Hat.....	10,571	164	189	132	223	248
<b>British Columbia—</b>						
New Westminster.....	21,967	260	250	297	312	351
Vancouver.....	275,353	2,020	2,393	2,151	3,338	4,043
Victoria.....	44,068	462	601	414	469	465

## Section 7.—Marriages and Divorces

### Subsection 1.—Marriages

**International Comparisons.**—Table 35 shows the marriage rates in Canada and the provinces in comparison with those of other countries. Canadian marriage rates are relatively high.

### 35.—Marriage Rates per 1,000 Population of various Countries of the World compared with Canada and the Provinces for recent years

(Sources: Monthly Bulletin of Statistics of the United Nations and other official publications. In certain cases final figures are not available and provisional data are used.)

Country or Province	Year	Marriage Rate	Country	Year	Marriage Rate
United States.....	1947	13.8	Union of South Africa (Whites).....	1946	11.9
Palestine.....	1946	11.4	Belgium.....	1947	9.9
Austria.....	1947	10.9	Denmark.....	1947	9.6
Bulgaria.....	1947	10.9	Italy.....	1947	9.4
New Zealand (excluding Maoris).....	1947	10.9	Roumania.....	1947	9.4
France.....	1947	10.3	England and Wales.....	1947	9.3
Netherlands.....	1947	10.2	Newfoundland and Labrador.....	1946	9.3
Australia.....	1947	10.1	Norway.....	1946	9.3
<b>Canada</b> .....	<b>1947</b>	<b>10.1</b>	Switzerland.....	1947	8.7
British Columbia.....	1947	11.4	Scotland.....	1947	8.6
Alberta.....	1947	10.7	Sweden.....	1947	8.6
New Brunswick.....	1947	10.6	Chile.....	1947	8.2
Ontario.....	1947	10.5	Spain.....	1947	8.2
Manitoba.....	1947	10.4	Iceland.....	1944	7.8
Quebec.....	1947	9.6	Northern Ireland.....	1947	7.1
Nova Scotia.....	1947	9.4	Ceylon.....	1947	6.2
Saskatchewan.....	1947	9.1	Ireland.....	1947	5.5
Prince Edward Island.....	1947	7.2	Panama.....	1947	4.1
Hungary.....	1947	10.1	El Salvador.....	1947	3.5

In modern industrial countries, the marriage rate varies with the level of economic prosperity. Marriage rates fell during the depression years following 1929, but recovered in the later 1930's. In Canada, England and the United States, the number of marriages was exceptionally high in 1940-42. The number decreased in the years 1943 and 1944 but increased in 1945 and 1946. In Canada there were 20 p.c. fewer marriages in 1944 than in 1942. In 1945 there were 7 p.c. more marriages than in 1944 and in 1946 the number was 5.3 p.c. more than in 1942, the previous high year. The number decreased in 1947.

**Numbers and Birthplaces of Bridegrooms and Brides.**—Table 36 shows the number of marriages and the marriage rates per 1,000 population in Canada and the provinces. Percentages of brides and bridegrooms according to place of birth are also given.

The proportion of brides and bridegrooms born in Canada is increasing. The average in 1941-45 was more than 10 p.c. greater than in 1931-35. In the Western Provinces, over one-third of the marriages solemnized in 1931-35 were between persons born outside Canada. In 1941-45, taking Canada as a whole, approximately 88 p.c. of all bridegrooms and 92 p.c. of all brides were born in Canada. In the Western Provinces the proportions were 76 p.c. and 86 p.c., respectively. The higher proportion of marriages between persons born in Canada was due to the restricted immigration of recent years. In 1946 and 1947 there was a slight increase in the percentages of brides born outside Canada.

**36.—Marriages and Marriage Rates, by Provinces, with Percentage Distribution of Bridegrooms and Brides by Nativity, 1944-47**

Province and Year	Marriages		Percentage Distribution of Bridegrooms and Brides, by Nativity					
	Total	Rate per 1,000 Popu- lation	Born in Province Where Married		Born in Other Provinces		Born Outside Canada	
			Grooms		Brides		Grooms	
			No.	p.c.	No.	p.c.	No.	p.c.
Prince Edward Island.....1944	646	7.1	68.9	87.6	20.1	9.6	11.0	2.8
1945	680	7.4	75.0	87.6	20.0	8.5	5.0	3.8
1946	837	8.9	85.4	91.3	9.9	5.9	4.7	2.9
1947	676	7.2	85.9	88.5	8.6	5.5	5.5	6.1
Nova Scotia.....1944	5,942	9.7	62.2	78.5	27.1	14.0	10.8	7.5
1945	5,992	9.6	63.5	79.4	27.0	12.6	9.5	8.0
1946	6,549	10.7	77.3	85.1	14.9	7.5	7.8	7.4
1947	5,861	9.4	80.9	84.0	11.2	6.9	7.8	9.0
New Brunswick.....1944	3,813	8.3	72.5	85.9	16.8	8.8	10.7	5.3
1945	4,491	9.6	74.1	85.5	17.1	8.6	8.8	5.9
1946	5,866	12.2	78.9	86.7	12.6	7.3	8.5	6.0
1947	5,189	10.6	78.6	84.6	10.5	7.2	10.9	8.3
Quebec.....1944	31,922	9.1	88.1	91.4	6.2	4.9	5.7	3.7
1945	33,211	9.3	87.4	90.7	6.7	5.3	5.9	3.9
1946	36,650	10.1	86.6	89.2	7.4	6.6	6.1	4.3
1947	35,494	9.6	88.0	89.9	6.4	5.9	5.6	4.2

**36.—Marriages and Marriage Rates, by Provinces, with Percentage Distribution of Bridegrooms and Brides by Nativity, 1944-47—concluded**

Province and Year	Marriages		Percentage Distribution of Bridegrooms and Brides, by Nativity					
	Total	Rate per 1,000 Popu- lation	Born in Province Where Married		Born in Other Provinces		Born Outside Canada	
			Grooms	Brides	Grooms	Brides	Grooms	Brides
			p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Ontario.....1944	31,227	7.9	80.3	82.0	8.6	9.2	11.1	8.9
1945	34,137	8.5	74.5	78.7	12.1	11.1	13.4	10.2
1946	46,073	11.2	73.7	77.4	12.2	11.3	14.1	11.4
1947	44,056	10.5	73.6	76.1	11.8	10.9	14.5	13.0
Manitoba.....1944	6,294	8.6	60.6	73.3	19.8	14.6	19.5	12.1
1945	6,579	8.9	62.8	73.8	20.0	15.9	17.3	10.4
1946	8,594	11.8	68.1	74.3	17.3	15.6	14.6	10.1
1947	7,712	10.4	70.9	75.4	15.9	13.8	13.3	10.8
Saskatchewan.....1944	5,919	7.0	67.4	82.2	14.6	8.5	18.0	9.3
1945	6,369	7.5	70.5	82.8	14.6	8.7	14.9	8.4
1946	8,279	9.9	74.9	84.0	13.0	7.9	12.2	8.0
1947	7,674	9.1	76.7	83.7	11.5	7.0	11.7	9.3
Alberta.....1944	7,299	8.9	45.7	61.6	24.4	21.1	29.9	17.2
1945	7,310	8.8	49.9	63.9	23.7	20.3	26.4	15.8
1946	9,478	11.8	56.7	66.3	22.5	19.4	20.8	14.3
1947	8,797	10.7	58.1	65.7	23.3	19.3	18.6	15.0
British Columbia.....1944	8,434	9.0	29.9	40.3	41.5	41.2	28.6	18.4
1945	9,262	9.8	30.3	40.2	43.2	42.0	26.5	17.9
1946	11,762	11.7	34.5	40.2	41.0	43.6	24.5	16.2
1947	11,852	11.4	33.7	38.7	43.0	43.7	23.3	17.6
Canada (Exclusive of the Territories).....1944	101,496	8.5	72.7	79.5	14.2	11.9	13.1	8.6
1945	108,031	8.9	71.4	78.4	15.6	12.7	13.0	8.9
1946	134,088	10.9	72.8	77.6	14.6	13.1	12.6	9.3
1947	127,311	10.1	73.5	76.9	14.2	12.7	12.4	10.4

**Age and Marital Status of Bridegrooms and Brides.**—The distribution of bridegrooms and brides by age and marital status is shown in Table 37. Over 90 p.c. of the marriages in 1947 were between persons who had not previously been married. The average age at marriage of bachelors is about 27 years and that of spinsters between 24 and 25 years. The average age of widowers and widows at the time of re-marriage is more than 20 years higher than that of bachelors and spinsters, being 50.3 years in 1940-42 and 52.5 in 1947 for widowers and 46.4 and 44.7, respectively, for widows. The age distribution of widowers and widows at the time of re-marriage is, of course, very different from that of bachelors and spinsters.

Widowers and widows were each 5 p.c., of all bridegrooms and brides in 1947, compared with 3.8 and 2.7 p.c., respectively, in 1940-42. Marriages of divorced persons made up 4.0 p.c. of the total in 1947.



## 37.—Marriages, by Age and Marital Status of Contracting Parties, 1945-47

Age Group	BRIDEGROOMS											
	1945				1946				1947			
	Bach- elors	Wid- owers	Di- vorced	Total	Bach- elors	Wid- owers	Di- vorced	Total	Bach- elors	Wid- owers	Di- vorced	Total
NUMBERS												
Under 20 years..	5,049	—	—	5,049	5,219	1	—	5,220	5,072	2	1	5,075
20-24 " ..	40,274	50	69	40,393	51,621	70	148	51,839	49,627	52	196	49,875
25-29 " ..	29,315	253	405	29,973	38,940	277	720	39,937	36,357	268	1,036	37,661
30-34 " ..	13,156	452	711	14,319	15,767	504	1,052	17,323	13,842	435	1,367	15,644
35-39 " ..	5,686	577	603	6,866	6,385	630	924	7,939	5,698	592	1,126	7,416
40-44 " ..	2,746	664	459	3,869	2,863	667	625	4,155	2,501	622	743	3,866
45-49 " ..	1,346	741	306	2,393	1,335	798	334	2,467	1,248	745	417	2,410
50-54 " ..	647	776	164	1,587	591	765	192	1,548	603	820	223	1,646
55-59 " ..	354	925	101	1,380	336	912	109	1,357	333	862	126	1,321
60-64 " ..	160	774	48	982	150	813	39	1,002	171	831	57	1,059
65 years or over.....	123	1,040	26	1,189	116	1,153	25	1,294	107	1,207	20	1,334
<b>Totals, Stated Ages</b>	<b>98,856</b>	<b>6,252</b>	<b>2,892</b>	<b>108,000</b>	<b>123,323</b>	<b>6,590</b>	<b>4,168</b>	<b>134,081</b>	<b>115,559</b>	<b>6,436</b>	<b>5,312</b>	<b>127,307</b>
Ages not stated.....	29	2	—	31	7	—	—	7	3	1	—	4
<b>Totals, All Ages.....</b>	<b>98,885</b>	<b>6,254</b>	<b>2,892</b>	<b>108,031</b>	<b>123,330</b>	<b>6,590</b>	<b>4,168</b>	<b>134,088</b>	<b>115,562</b>	<b>6,437</b>	<b>5,312</b>	<b>127,311</b>
Avg. ages.	27.3	51.7	38.6	29.0	27.1	51.5	37.2	28.6	26.9	52.2	36.7	28.6
PERCENTAGES												
Under 20 years..	5.1	...	...	4.7	4.2	...	...	3.9	4.4	...	...	4.0
20-24 " ..	40.7	0.8	12.4	37.4	41.9	1.1	3.6	38.7	42.9	0.8	3.7	39.2
25-29 " ..	29.7	4.0	14.0	27.8	31.6	4.2	17.3	29.8	31.5	4.2	19.5	29.6
30-34 " ..	13.3	7.2	24.6	13.3	12.8	7.6	25.2	12.9	12.0	6.8	25.7	12.3
35-39 " ..	5.8	9.2	20.9	6.4	5.2	9.6	22.2	5.9	4.9	9.2	21.2	5.8
40-44 " ..	2.8	10.6	15.9	3.6	2.3	10.1	15.0	3.1	2.2	9.7	14.0	3.0
45-49 " ..	1.4	11.9	10.6	2.2	1.1	12.1	8.0	1.8	1.1	11.6	7.9	1.9
50-54 " ..	0.7	12.4	5.7	1.5	0.5	11.6	4.6	1.2	0.5	12.7	4.2	1.3
55-59 " ..	0.4	14.8	3.5	1.3	0.3	13.8	2.6	1.0	0.3	13.4	2.4	1.0
60-64 " ..	0.2	12.4	1.7	0.9	0.1	12.3	0.9	0.7	0.1	12.9	1.1	0.8
65 years or over.....	0.1	16.6	0.9	1.1	0.1	17.5	0.6	1.0	0.1	18.8	0.4	1.0
<b>Totals, Stated Ages</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Percentages of All Ages.	91.5	5.8	2.7	100.0	92.0	4.9	3.1	100.0	90.8	5.1	4.2	100.0

## 37.—Marriages, by Age and Marital Status of Contracting Parties, 1945-47—concluded

Age Group	BRIDES											
	1945				1946				1947			
	Spin- sters	Wid- ows	Di- vorced	Total	Spin- sters	Wid- ows	Di- vorced	Total	Spin- sters	Wid- ows	Di- vorced	Total
NUMBERS												
Under 20 years..	22,624	22	5	22,651	28,067	35	13	28,115	28,313	13	13	28,339
20-24 " ..	47,140	414	325	47,879	58,796	595	553	59,944	54,429	391	631	55,451
25-29 " ..	18,006	473	605	19,084	22,695	968	1,113	24,776	20,523	815	1,404	22,742
30-34 " ..	6,758	516	631	7,905	8,047	761	1,002	9,810	7,201	709	1,189	9,099
35-39 " ..	2,964	523	493	3,980	3,209	658	699	4,566	3,216	617	775	4,608
40-44 " ..	1,325	646	256	2,227	1,348	666	373	2,387	1,339	680	423	2,442
45-49 " ..	677	675	141	1,493	650	799	158	1,607	655	749	240	1,644
50-54 " ..	303	659	74	1,036	271	688	73	1,032	289	672	108	1,069
55-59 " ..	160	584	29	773	140	578	42	760	148	561	31	740
60-64 " ..	71	388	6	465	52	446	16	514	58	532	8	598
65 years or over.....	49	455	2	506	49	502	4	555	37	536	5	578
<b>Totals, Stated Ages</b>	<b>100,077</b>	<b>5,355</b>	<b>2,567</b>	<b>107,999</b>	<b>123,324</b>	<b>6,696</b>	<b>4,046</b>	<b>134,066</b>	<b>116,208</b>	<b>6,275</b>	<b>4,827</b>	<b>127,310</b>
Ages not stated.....	26	4	2	32	21	1	—	22	—	1	—	1
<b>Totals, All Ages</b>	<b>100,103</b>	<b>5,359</b>	<b>2,569</b>	<b>108,031</b>	<b>123,345</b>	<b>6,697</b>	<b>4,046</b>	<b>134,088</b>	<b>116,208</b>	<b>6,276</b>	<b>4,827</b>	<b>127,311</b>
Avge. ages.	24.3	45.4	33.8	25.5	24.1	43.1	32.9	25.3	24.0	44.7	32.8	25.3
PERCENTAGES												
Under 20 years..	22.6	0.4	0.2	21.0	22.8	0.5	0.3	21.0	24.4	0.2	0.3	22.3
20-24 " ..	47.1	7.7	12.7	44.3	47.7	8.9	13.7	44.7	46.8	6.2	13.1	43.6
25-29 " ..	18.0	8.8	23.6	17.7	18.4	14.5	27.5	18.5	17.7	13.0	29.1	17.9
30-34 " ..	6.8	9.6	24.6	7.3	6.5	11.4	24.8	7.3	6.2	11.3	24.6	7.1
35-39 " ..	3.0	9.8	19.2	3.7	2.6	9.8	17.3	3.4	2.8	9.8	16.1	3.6
40-44 " ..	1.3	12.1	10.0	2.1	1.1	9.9	9.2	1.8	1.2	10.8	8.8	1.9
45-49 " ..	0.7	12.6	5.5	1.4	0.5	11.9	3.9	1.2	0.6	11.9	5.0	1.3
50-54 " ..	0.3	12.3	2.9	1.0	0.2	10.3	1.8	0.8	0.2	10.7	2.2	0.8
55-59 " ..	0.2	10.9	1.1	0.7	0.1	8.6	1.0	0.6	0.1	8.9	0.6	0.6
60-64 " ..	0.1	7.2	0.2	0.4	—	6.7	0.4	0.4	—	8.5	0.2	0.5
65 years or over.....	—	8.5	0.1	0.5	—	7.5	0.1	0.4	—	8.5	0.1	0.5
<b>Totals, Stated Ages</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Percentages of All Ages.	92.7	5.0	2.4	100.0	92.0	5.0	3.0	100.0	91.3	4.9	3.8	100.0

**Religious Denominations of Brides and Bridegrooms.**—The distribution of brides and bridegrooms by religious denominations is roughly the same as that for the population as a whole. Table 38 shows the very strong influence that religion has on marriage. Approximately 70 p.c. of all marriages are between persons of the same religious denomination; among those of Jewish faith, it was 96 p.c. in 1947; and among Roman Catholics 88 p.c.; United Church 61 p.c. and Eastern Orthodox 58 p.c.

## 38.—Marriages by Religious Denominations of Contracting Parties, 1945-47

Year and Denominations of Bridegrooms	Denominations of Brides										Total Marriages	Percentage
	Anglican	Baptist	Eastern Orthodox	Jewish	Lutheran	Presbyterian	Roman Catholic <sup>1</sup>	United Church	Other Sects	Not Stated		
1945	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	
Anglican.....	7,423	761	77	8	330	1,057	1,472	3,763	473	7	15,371	14.2
Baptist.....	724	2,027	9	2	96	236	357	916	242	1	4,610	4.3
Eastern Orthodox.....	52	14	667	3	30	22	216	103	29	2	1,138	1.1
Jewish.....	20	3	1	1,583	6	3	25	18	13	1	1,673	1.5
Lutheran.....	394	116	45	4	1,384	170	401	636	205	2	3,357	3.1
Presbyterian.....	1,276	319	17	3	192	2,265	618	1,529	209	4	6,432	6.0
Roman Catholic <sup>1</sup> .....	1,333	294	177	13	291	428	43,549	1,408	418	16	47,927	44.4
United Church.....	3,431	976	66	8	529	1,189	1,524	13,023	562	7	21,315	19.7
Other sects.....	451	253	53	11	195	197	556	702	3,711	13	6,142	5.7
Not stated.....	16	—	—	—	2	3	9	8	4	24	66	0.1
<b>Totals, 1945.....</b>	<b>15,120</b>	<b>4,763</b>	<b>1,112</b>	<b>1,635</b>	<b>3,055</b>	<b>5,570</b>	<b>48,727</b>	<b>22,106</b>	<b>5,866</b>	<b>77</b>	<b>108,031</b>	<b>100.0</b>
Percentages.....	14.0	4.4	1.0	1.5	2.8	5.2	45.1	20.5	5.4	0.1	100.0	69.5 <sup>2</sup>
1946												
Anglican.....	10,027	968	109	13	435	1,343	2,028	4,838	578	4	20,343	15.2
Baptist.....	947	2,520	15	5	119	326	478	1,214	285	1	5,910	4.4
Eastern Orthodox.....	71	18	913	1	34	18	285	103	37	1	1,481	1.1
Jewish.....	30	3	3	2,122	4	12	34	26	11	1	2,246	1.7
Lutheran.....	472	155	42	5	1,638	203	481	711	271	3	4,051	3.0
Presbyterian.....	1,632	426	40	9	197	2,868	788	1,911	240	—	8,111	6.0
Roman Catholic <sup>1</sup> .....	1,655	364	225	34	391	565	50,212	1,807	507	10	55,770	41.6
United Church.....	4,459	1,164	133	15	711	1,532	2,126	17,658	748	8	28,556	21.3
Other sects.....	619	286	27	14	210	254	707	839	4,628	2	7,586	5.7
Not stated.....	6	2	1	—	—	3	6	5	2	9	34	—
<b>Totals, 1946.....</b>	<b>19,918</b>	<b>5,906</b>	<b>1,508</b>	<b>2,218</b>	<b>3,739</b>	<b>7,126</b>	<b>57,145</b>	<b>29,182</b>	<b>7,307</b>	<b>39</b>	<b>134,088</b>	<b>100.0</b>
Percentages.....	14.9	4.4	1.1	1.7	2.8	5.3	42.6	21.8	5.4	—	100.0	69.1 <sup>2</sup>
1947												
Anglican.....	9,207	778	103	9	442	1,164	1,920	4,420	620	6	18,669	14.7
Baptist.....	853	2,347	24	1	104	266	413	1,109	276	1	5,394	4.2
Eastern Orthodox.....	90	19	868	1	51	32	293	99	33	2	1,488	1.2
Jewish.....	20	8	1	1,978	2	9	27	29	30	1	2,105	1.7
Lutheran.....	485	125	45	2	1,627	189	476	742	223	2	3,916	3.1
Presbyterian.....	1,549	343	35	4	212	2,667	737	1,721	264	2	7,534	5.9
Roman Catholic <sup>1</sup> .....	1,580	344	235	14	392	524	47,941	1,647	608	16	53,301	41.9
United Church.....	4,408	1,126	137	13	700	1,461	2,073	16,787	813	6	27,524	21.6
Other sects.....	566	252	49	10	232	202	704	744	4,591	2	7,352	5.8
Not stated.....	9	—	1	—	—	3	5	4	2	4	28	—
<b>Totals, 1947.....</b>	<b>18,767</b>	<b>5,342</b>	<b>1,498</b>	<b>2,032</b>	<b>3,762</b>	<b>6,517</b>	<b>54,589</b>	<b>27,302</b>	<b>7,460</b>	<b>42</b>	<b>127,311</b>	<b>100.0</b>
Percentages.....	14.7	4.2	1.2	1.6	3.0	5.1	42.9	21.4	5.9	—	100.0	69.1 <sup>2</sup>

<sup>1</sup> Includes Greek Catholic, religious denomination.<sup>2</sup> Percentage of marriages between contracting parties of the same

## Subsection 2.—Dissolutions of Marriage (Divorces)

For many years after Confederation, the number of divorces in Canada was very small. It was less than 20 in every year before 1900. There were 23 divorces in 1903, 51 in 1909 and 60 in 1913. These numbers were less than 1 per 1,000 of the yearly number of marriages.

One effect of the First World War was to increase the number of divorces. The generally unsettled conditions and the long separation between men on Active Service and their wives contributed to this increase. Changes in law and procedure

which made it easier to obtain divorce was a further factor. At present, Quebec is the only province in which applicants for divorce must secure a private Act of Parliament.

There were 114 divorces in Canada in 1918 and 608 in 1926; the number had increased to 700 by 1931, 1,570 by 1936 and 2,369 by 1940. In every year since then the number has been higher than in the year before. The figures for the most part cover only final decrees of dissolution of marriage which alone constitute divorces; annulments and legal separations are excluded.

The statistics of dissolutions of marriage were revised in 1941 with the co-operation of the provincial authorities and the Clerk of the Divorce Committee of the Senate of Canada.

### 39.—Dissolutions of Marriage (Divorces), by Provinces, 1944-47

Item	Granted by Parliament of Canada		Granted by the Courts								Canada <sup>1</sup>
	P.E.I.	Que.	P.E.I.	N.S.	N.B.	Ont.	Man.	Sask.	Alta.	B.C.	
<b>Numbers—</b>											
1944	3	108	...	93	78	1,471	316	226	484	1,009	3,788
1945	2	177	...	158	171	1,940	405	282	575	1,366	5,076
1946	2	290	4	260	382	2,639	636	505	962	2,005	7,683
1947	2	348	18	207	236	3,509	665	509	881	1,826	8,199
<b>Percentages—</b>											
1944	0.1	2.8	...	2.5	2.1	38.8	8.3	6.0	12.8	26.6	100.0
1945	-	3.5	...	3.1	3.4	38.2	8.0	5.6	11.3	26.9	100.0
1946	2	3.8	0.1	3.4	5.0	34.4	8.3	6.6	12.5	26.1	100.0
1947	2	4.2	0.2	2.5	2.9	42.8	8.1	6.2	10.7	22.3	100.0

<sup>1</sup> Exclusive of the Territories.

<sup>2</sup> A Divorce Court was established in Prince Edward Island in 1945 and figures for 1946 and 1947 are shown in the third column.

## Section 8.—Vital Statistics of Yukon and the Northwest Territories

The vital statistics of Yukon and the Northwest Territories have been collected since 1924. These statistics are not presented with those of the nine provinces in the tables of this Chapter, because the figures are not considered complete. The details are in many cases not available, and the small and varying population of each year is not accurately known.

### 40.—Vital Statistics of Yukon and the Northwest Territories, 1941-47, with Five-Year Averages, 1926-40

NOTE.—Figures for 1944 to 1946 are by place of residence; for previous years by place of occurrence.

Year	Yukon			Northwest Territories		
	Births	Marriages	Deaths	Births	Marriages	Deaths
	No.	No.	No.	No.	No.	No.
Averages, 1926-30.....	33	14	54	158	24	185
Averages, 1931-35.....	49	24	61	190	41	137
Averages, 1936-40.....	67	36	72	228	72	177
1941.....	72	36	67	314	82	306
1942.....	96	36	108	369	109	222
1943.....	99	67	120	403	94	304
1944.....	136	94	100	316	66	349
1945.....	123	69	87	511	122	478
1946.....	146	66	80	593	177	347
1947.....	218 <sup>p</sup>	61 <sup>p</sup>	77 <sup>p</sup>	602 <sup>p</sup>	100 <sup>p</sup>	311 <sup>p</sup>

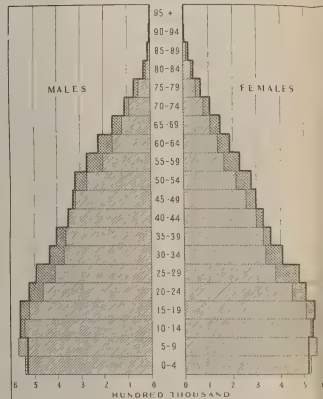


# GRAPHIC RECORD OF VITAL STATISTICS IN CANADA

## 1926 - 47

POPULATION OF CANADA BY SEX  
AND QUINQUENNIAL AGE GROUPS

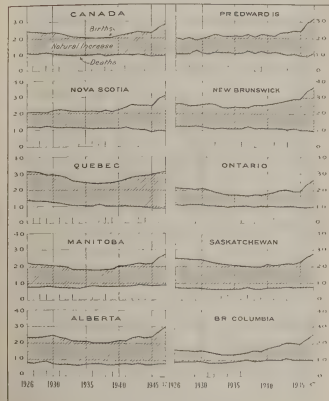
1931 — 1941 —



\* Exclusive of Yukon and the Northwest Territories

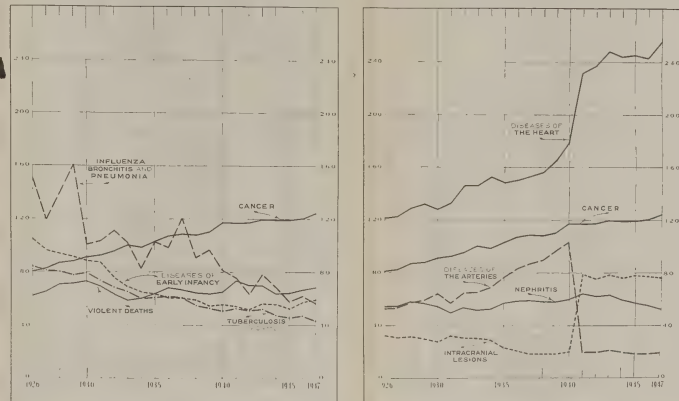
BIRTH RATES, DEATH RATES AND  
RATES OF NATURAL INCREASE

Rates per 1000 Population



LEADING CAUSES OF DEATH

Rates per 100,000 population

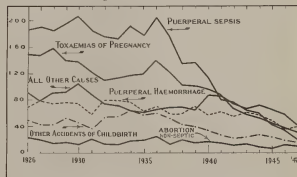


(Continued)

## MATERNAL MORTALITY

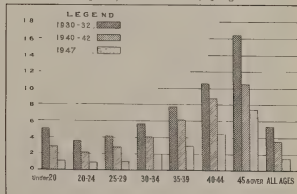
GROUP CAUSES OF DEATH

Rates per 100,000 Live Births



## MATERNAL MORTALITY

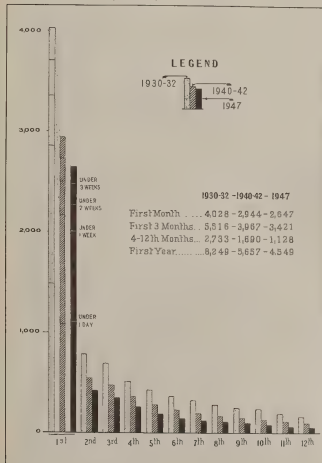
Rates per 1,000 Live Births, by Ages



## INFANT MORTALITY

AT EACH AGE PERIOD

Rates per 100,000 Live Births



### LEGEND

1930-32 1940-42 1947

1930-32 - 1940-42 - 1947

First Month . . . 4,028 - 2,944 - 2,647

First 3 Months . . 5,516 - 3,967 - 3,421

4-12th Months . . 2,733 - 1,690 - 1,128

First Year . . . . 8,249 - 5,657 - 4,549

## RECORD

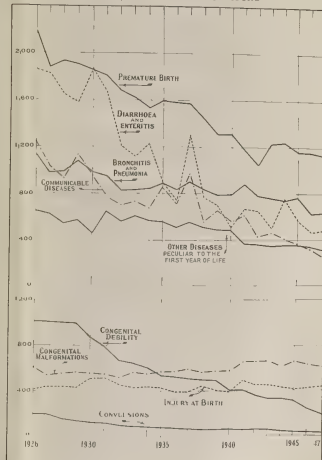
OF

## VITAL STATISTICS

1926-47

## LEADING CAUSES OF INFANT MORTALITY

Rates per 100,000 Live Births



## Section 9.—Vital Statistics of Newfoundland Prior to Union

A short summary of the latest principal vital statistics for Newfoundland prior to union are presented in Tables 41 and 42. These figures are taken from the reports of the Registrar General of Newfoundland. When figures for 1949 are available, the vital statistics for Newfoundland will be included with the provincial totals.

## 41.—Live Births, Deaths, Natural Increase and Marriages in Newfoundland, 1921-46

Year	Live Births		Deaths		Natural Increase		Infant Mortality		Marriages	
	Number	Rate per 1,000 Population	Number	Rate per 1,000 Population	Number	Rate per 1,000 Population	Number	Rate per 1,000 Live Births	Number	Rate per 1,000 Population
1921.....	7,151	27.2	3,376	12.8	3,775	14.4	..	107.9	1,522	5.7
1922.....	7,254	27.8	3,581	13.7	3,673	14.1	846	116.8	1,441	5.5
1923.....	6,928	27.8	3,528	13.7	3,400	14.1	738	106.4	1,357	5.2
1924.....	6,700	25.6	4,182	15.9	2,518	9.7	888	132.6	1,402	5.3
1925.....	6,898	26.0	3,656	13.8	3,242	12.2	807	117.1	1,682	6.3
1926.....	7,163	27.0	3,482	13.0	3,681	14.0	677	94.5	1,705	6.4
1927.....	6,806	25.5	3,646	13.7	3,160	11.8	774	113.8	1,517	5.6
1928.....	6,607	24.6	3,706	13.8	2,901	10.8	749	111.8	1,655	6.1
1929.....	6,643	24.2	3,885	14.4	2,758	9.8	794	116.9	1,650	6.0
1930.....	6,563	23.8	3,702	13.4	2,861	10.4	903	134.8	1,631	5.9
1931.....	6,551	23.3	3,757	13.4	2,794	9.9	890	132.7	1,588	5.6
1932.....	6,793	24.0	3,600	12.7	3,193	11.3	813	119.7	1,551	5.5
1933.....	6,686	23.4	3,447	12.0	3,239	11.4	710	106.2	1,610	5.6
1934.....	6,746	23.4	3,493	12.1	3,253	11.3	706	102.8	1,866	6.5
1935.....	6,656	23.0	3,913	13.5	2,743	9.5	790	116.2	1,925	6.6
1936.....	7,342	25.2	3,802	13.0	3,540	12.2	826	112.7	1,943	6.6
1937.....	7,340	25.0	3,967	13.5	3,373	11.5	902	123.0	2,101	7.1
1938.....	7,343	24.8	3,586	12.1	3,757	12.7	681	92.8	2,172	7.3
1939.....	8,226	27.5	3,502	11.7	4,724	15.8	637	77.5	2,492	8.3
1940.....	7,937	26.3	3,547	11.8	4,390	14.5	722	91.0	2,331	7.7
1941.....	8,288	27.3	3,784	12.5	4,504	14.8	809	97.7	2,684	8.7
1942.....	8,791	28.6	3,802	12.3	4,989	16.3	853	97.0	3,269	10.6
1943.....	8,861	28.3	3,581	11.4	5,280	16.9	827	93.5	2,729	8.7
1944.....	9,295	29.3	3,892	13.3	5,403	16.0	937	101.0	3,000	9.4
1945.....	11,223	34.9	3,346	10.4	7,877	24.5	833	74.2	3,154	9.8
1946.....	12,033	36.3	3,427	10.4	8,606	25.9	887	73.8	3,067	9.3

## 42.—Births, Deaths and Marriages by Districts in Newfoundland, 1946

Districts	Live Births		Deaths		Marriages	
	Number	Rate per 1,000 Population	Number	Rate per 1,000 Population	Number	Rate per 1,000 Population
St. John's East and West.....	2,301	34.3	755	11.2	872	13.0
Harbour Main—Bell Island.....	744	41.2	215	11.9	157	8.7
Port de Grave.....	273	32.5	100	11.9	75	8.9
Harbour Grace.....	271	36.5	92	12.4	53	7.1
Carbonear—Bay de Verde.....	427	32.7	177	13.6	95	7.3
Trinity South.....	402	35.9	96	8.6	74	6.6
Trinity North.....	442	33.8	150	11.5	101	7.7
Bonavista South.....	370	31.3	131	11.2	111	9.4
Bonavista North.....	565	42.1	162	12.1	110	8.2
Fogo.....	352	34.5	95	9.3	65	6.4
Twillingate.....	344	35.1	84	9.2	85	8.7
Grand Falls.....	844	42.0	141	7.0	240	12.0
Green Bay.....	353	40.6	78	9.0	69	7.8
White Bay.....	387	35.1	51	6.8	82	7.4
St. Barbe.....	311	40.0	78	7.1	87	11.2
Humber.....	911	43.3	225	10.7	205	10.2
St. George's—Port-au-Port.....	467	35.0	156	11.7	112	8.4
Burgeo and La Poile.....	372	38.8	111	11.6	72	7.5
Fortune Bay and Hermitage.....	457	39.0	129	11.0	112	9.5
Burin.....	431	39.6	104	9.3	83	7.4
Placentia West.....	243	25.0	67	6.8	52	5.3
Placentia and St. Mary's.....	390	40.2	79	8.1	77	7.9
Ferryland.....	186	28.9	61	9.5	38	5.9
Labrador.....	190	32.8	90	15.5	40	6.9
<b>Totals.....</b>	<b>12,033</b>	<b>36.3</b>	<b>3,427</b>	<b>10.4</b>	<b>3,067</b>	<b>9.3</b>

# CHAPTER VII.—PUBLIC HEALTH, WELFARE AND INCOME SECURITY

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

While the major responsibility for public health and welfare has rested with the provinces, the fiscal capacity of these Governments has not always been sufficient to meet the demands for either improved or new social legislation. On the other hand, the Federal Government, which occupies a much stronger financial position than do provincial and local governments, has faced certain constitutional limitations with regard to social security measures. In order to circumvent these difficulties in the furtherance of social legislation different approaches have been used. In the case of unemployment insurance an amendment to the British North America Act was obtained placing this field of activity under Federal jurisdiction. But in the field of old age benefits a joint Federal-Provincial pension program was established. While this pension plan is administered provincially, Federal financial assistance is provided through grants-in-aid representing 75 p.c. of the pension. Similarly, in the area of public health, financial aid is being extended through several Federal health grants for the strengthening of Provincial Health Services. Family Allowances, a Federal non-contributory program, illustrates a third approach.

In addition, the Federal Government administers a number of programs which do not fall within provincial jurisdiction, such as health and welfare services for Indians and Eskimos, narcotic control, immigration health services, the sick mariner medical and hospital care program, and health and welfare programs for disabled veterans and the Armed Forces.

During colonial days, private charity including church aid, together with very limited public provision for institutional care of the indigent, the mentally ill and the sick, were the main social services. In 1871, four years after Confederation, Canada, with a population of about 3,700,000 persons, was spending around



\$1,000,000 on its public health and welfare programs. By 1949, health, welfare and income maintenance expenditures had risen to over \$900,000,000 while the population of 13,549,000 had only slightly more than trebled.

Of the expenditure on health, welfare and income maintenance programs by Federal and Provincial Governments and local administrations, almost 80 p.c. of the cost is being borne by the Federal Government. Although Federal expenditures on these social services have been relatively large, the bulk of Federal outlays has been for cash benefit programs, the more costly type of social security measure, as opposed to health and welfare services.

Provincial and municipal governments, while carrying proportionately less of the load of income maintenance programs, are playing an increasingly greater role in the provision of services, whether they be the impersonal environmental services such as sanitation or personal services such as the care and protection of children.

The public programs have been assisted and supplemented by the work of voluntary health and welfare agencies. The growth in professional education and number of trained health and welfare workers, and the development after the First World War of community chests and welfare councils, have strengthened voluntary services both in quality and in extent of coverage.

English poor law provisions were transplanted to most colonial areas in British North America leaving the main responsibility for the relief of the needy with local governments. Lack of local government organization and geographic factors in Newfoundland and Prince Edward Island made for centralized administration of relief in these two provinces while in Quebec the poor law approach failed to gain acceptance initially because of the strength of church charity.

With the mass unemployment of the 1930's and the need for relief on a broad scale, municipalities were financially unable to cope with the problem. The Federal and Provincial Governments extended financial aid in the form of grants both for direct relief and for public works. However, at the beginning of the Second World War the Federal Government withdrew its support from unemployment relief programs and similar action was followed by most provinces leaving the full responsibility for unemployment assistance to local governments. However, in two provinces, British Columbia and Ontario, substantial provincial grants toward local relief of 'unemployables' and their dependants are made while in Saskatchewan grants are made for both employables and unemployables and their dependants. In Quebec, the Public Charities Act enables the Provincial Government, the municipalities and private charity to share the costs of general assistance programs under the administration of the private agency.

During the War and immediate post-war period, the high level of employment minimized the amount and the duration of unemployment of able-bodied persons. Further, the coming into operation of Federal Unemployment Insurance in 1941, with a coverage of upwards of 3,000,000 workers, has provided a measure of protection for a large sector of the labour force. The National Employment Service, established in 1940, has provided a useful agency for the more effective utilization of manpower resources. Of fundamental importance for the future, particularly in the event of recession, is the attitude of Federal and Provincial Governments towards unemployment assistance and the Federal Government's fiscal policy and public investment program.

In addition to Unemployment Insurance, the Federal Government administers a number of other important income security schemes. Through the family allowances program, which began operation in 1945, about \$290,000,000 annually is paid out to 1,800,000 families on behalf of some 4,000,000 children, providing more economic security for the family and greater stability for the economy. The Prairie Farm Assistance plan offers crop insurance for prairie farmers, and support-prices for certain agricultural and fish products give a degree of income security for farmers and fishermen. War Pensions and War Veterans' Allowances have been provided as income maintenance programs for veterans who are disabled or in need.

Other important public income maintenance measures in Canada include the Federal-Provincial Old Age and Blind Pensions Scheme, and the provincial mothers' allowances and workmen's compensation programs.

In the provision of health and welfare services, the Federal Government has assisted the provincial programs through several health grants and physical fitness and vocational training grants. Federal aid has also been extended to the Schools of Social Work to assist in the training of social workers.

Within the framework of provincial statutes, a substantial part of the responsibility for welfare is borne by municipal governments, with Provincial Governments playing an increasing role in co-ordination and supervision of services and in sharing of costs. These services may include any or all of the following: family welfare; provision for the protection and support of children when normal parental care breaks down or is destroyed; protection of unmarried mothers and their children; relief in cash or kind; guidance and counselling services; institutional care, or supervision of institutional care, of aged or other needy persons; medical care to needy persons; leisure time and recreation services; special services to youth; and maintenance of juvenile or other correctional institutions.

In each province child care and protection is provided under child protection Acts which establish a central authority charged with the duty of stimulating and supervising the child protection program for the entire province. Six of the ten provinces delegate the responsibility for child protection to Children's Aid Societies, a distinctively Canadian development, in areas where they are established. These voluntary Societies operate under their own citizen boards but are subject to supervision by the provincial governments and receive both provincial and municipal financial support. Provincial Child Welfare Officers are directly responsible for the protection of children who have no established residence or who reside in an area which has no Children's Aid Society.

As in the case of public welfare, responsibility for public health and medical care in Canada is divided among Federal and Provincial Governments and local administrations, with important contributions also being made by private associations and organizations. While the Federal Government has certain specific health functions, centred largely in the Departments of National Health and Welfare and Veterans Affairs, the actual administration of public health and medical care programs, except for care provided to veterans for war-connected disability, members of the Armed Forces, Indians and Eskimos, and other Federal charges, is a provincial responsibility, carried out generally in co-operation with local governments.

No comprehensive public medical and hospital care program has yet emerged for Canada as a whole, though some progress has been made in the past decade. During the depression period a movement for health insurance developed in some

parts of the country. Health insurance legislation was passed in Alberta in 1935 and in British Columbia in 1936 but it did not go into effect. Wartime discussion and planning led to the publication of two reports, the Report of the Special Committee on Social Security and the Report on Social Security in Canada, both of which recommended health insurance. A Federal proposal to the Dominion-Provincial Conference on Reconstruction of 1945 outlined a nation-wide program of public medical care at an estimated annual cost of \$250,000,000.

Some of the more significant advances in public health and public medical care in recent years included the introduction of a Federal health grant program to assist provincial health services and to prepare for a broad health insurance scheme; the establishment of a prepaid public medical care scheme in Health Region No. 1 (Swift Current Area) in Saskatchewan; and the implementation of province-wide public hospital care schemes in Saskatchewan and British Columbia. With the entry of Newfoundland into Confederation another provincial prepaid hospital-care plan was brought into the orbit of Canadian experience. In this province, a cottage hospital scheme, which has been in operation for a decade and a half and which covers a considerable sector of the population outside of St. John's, provides hospital and medical care on a prepaid basis.

## PART I.—PUBLIC HEALTH\*

The Federal Government has responsibility for international health agreements, national services such as public health engineering, quarantine, civil aviation medicine, promotion of medical research and regulation of the sale and distribution of food products and drugs, provides assistance to provincial health services and non-government agencies and administers medical care programs for certain groups. Its functions are described in Section 1. The activities of the provincial governments are given in Section 2.

### Section 1.—Federal Health Activities

Federal participation in health matters is largely centred in the Department of National Health and Welfare, with certain important programs being administered by other departments such as the Department of Veterans Affairs, which provides medical and hospital care to veterans for disability suffered as a result of war service, the Department of National Defence, which is responsible for the health of the armed forces, and the National Research Council which, through the Division of Medical Research, administers grants for and co-ordinates medical research.

Under the Department of National Health and Welfare Act of 1944 the Department is responsible for the administration of certain statutes, for research in health matters, for the enforcement of international health obligations undertaken by Canada and, in co-operation with the provinces, for the preservation and improvement of public health.

Under the Quarantine Act the Department maintains a maritime and aerial navigation quarantine to exclude infectious diseases. It advises on the administration of sections of the Immigration Act dealing with health, provides care for sick mariners under Part V of the Canada Shipping Act and has certain national and international responsibilities under the Navigable Waters Protection Act with regard to the pollution of boundary and other waters.

\* Revised under the direction of Dr. G. D. W. Cameron, Deputy Minister of National Health, Department of National Health and Welfare.



Under the Food and Drugs Act, the Proprietary or Patent Medicines Act and the Opium and Narcotic Drugs Act the Department is responsible for the control of the quality of food and drugs, the registration, preparation and sale of proprietary or patent medicines and control of the import, export and distribution of narcotic drugs.

Health services for Indians and Eskimos as required by the Indian Act, 1876, are administered by the Department; it passes on the eligibility of applicants for pensions for the blind and co-operates with the provinces in the provision of remedial services for blind pensioners; it is responsible for supervision over the health conditions of persons engaged on Federal public works as provided under the Public Works Health Act and carries on a program for the conservation and promotion of the health of civil servants and other Government employees. A Division of Civil Aviation Medicine was established in 1948.

### National Health Grant Program

The announcement in May, 1948, of the National Health Grant Program enormously increased the Federal contribution to provincial health services and facilities by making available to the provinces annual grants of over \$30,000,000.

The Program is divided into three parts: a Health Survey Grant to assist the provinces in assessing their needs and the priority with which they should be met; a group of eight annual grants designed to assist in the extension and development of provincial health services; and an annual grant to assist in hospital construction. Except those for health survey and cancer control, the health grants are contingent upon the provinces maintaining, through their own resources, at least the pre-existing standard of services in the health field of each grant. A description of the individual grants follows:—

*The Health Survey Grant.*—\$625,000 is designed to assist the provinces in surveying health services and facilities, including hospitals, and in studying ways and means for their improvement. The grant which, unlike the others is non-recurring, is distributed on the basis of \$5,000 to each province and the balance according to population, with the total payment available to any province not less than \$15,000.

*The General Public Health Grant.*—\$4,395,000 is designed to assist in the strengthening of general public health services. It is distributed among the provinces on the basis of 35 cents per capita in 1948, with the grant being increased annually in succeeding years by 5 cents per capita until it reaches 50 cents per capita.

*The Tuberculosis Control Grant.*—\$3,000,000 is designed to permit an accelerated and intensified effort directed towards the eradication of tuberculosis in Canada and to extend progressively the provision of free treatment. The distribution of the grant is based on a flat payment of \$25,000 to each province with the balance being divided 50 p.c. according to population and 50 p.c. according to the average number of deaths from tuberculosis in each province over the five-year period 1942-46, inclusive. It is intended that the grant be increased to \$4,000,000 annually after it has been in operation for a period of two years.

*The Mental Health Grant.*—\$4,000,000 is designed to assist the provinces in the prevention of mental illness and in extending progressively the provision of free treatment. It is distributed on the basis of a flat amount of \$25,000 to each



province and the balance according to population. It is intended that the grant be increased to \$5,000,000 at the end of two years, to \$6,000,000 at the end of four years, and to \$7,000,000 at the end of six years.

*The Venereal Disease Control Grant.*—\$500,000 increases the \$225,000 grant previously made to the provinces to assist in extending and intensifying their efforts toward the control of venereal disease. The new section of the grant is distributed according to population.

*The Crippled Children's Grant.*—\$500,000 is designed to assist the provinces in an intensive program for the prevention and correction of crippling conditions in children and for rehabilitation. The grant is distributed on the basis of a flat amount of \$4,000 to each province with the balance allocated on a per capita basis.

*The Professional Training Grant.*—\$500,000 is designed to assist the provinces in the training of public health and hospital personnel. It is distributed on the basis of a flat amount of \$4,000 to each province with the balance allocated on a per capita basis.

*The Public Health Research Grant.*—\$100,000 is designed to assist the provinces in stimulating and developing public health research. The provinces may submit projects individually or jointly to the Dominion Council of Health, and, with the approval of a province or provinces, a university or research body may also submit a project. The grant is increased by \$100,000 each year until it reaches the sum of \$500,000 annually.

*The Cancer Control Grant.*—\$3,500,000 is designed to assist the provinces in programs for the control of cancer. The grant is distributed on a dollar for dollar matching per capita basis for approved programs of cancer control.

*The Hospital Construction Grant.*—\$13,000,000 is designed to assist the provinces in the provision of adequate accommodation for hospital and health services. The annual grant is distributed on the basis of population and will be reviewed at the end of five years from the commencement of the program, and possibly reduced by one-half at that time.

**Federal Grants to Non-Governmental Organizations.**—Provision was made in the 1948-49 Estimates of the Federal Government for grants to the following non-governmental agencies engaged in health work: the Canadian Red Cross Society, the Canadian Tuberculosis Association, the Victorian Order of Nurses, the St. John Ambulance Association, the Canadian Paraplegic Association, the Canadian National Committee for Mental Hygiene, the Health League of Canada, the Canadian Public Health Association, the Canadian National Institute for the Blind, L'Association Canadienne Francaise des Aveugles, L'Institut Nazareth de Montreal and the Montreal Association for the Blind.

**Medical Care of Indians and Eskimos.**—Government health services for Indians and Eskimos have gradually expanded. In 1949 there were 20 hospitals administered by the Federal Government together with a number of mission hospitals and nursing stations. Larger Indian reserves have a full-time Departmental medical officer; smaller bands have attention on a part-time basis or, in some cases, the local physician receives fees for services rendered to Indians.

A country-wide staff of physicians, nurses and field matrons and dispensers arranges for medical attention and hospitalization, field nursing and general health services. The present marked expansion of Indian health services began in 1928

when a separate Medical Branch was established in the Department of Indian Affairs. In 1945, Indian health services were transferred to the Department of National Health and Welfare and are now conducted through a small headquarters staff.

### **Consultative and Co-ordinating Services**

The principal co-ordinating agency in the health field in Canada is the Dominion Council of Health composed of the Deputy Minister of National Health as Chairman, the chief executive officer of each Provincial Health Department and five other persons. The Council advises the Minister of National Health and Welfare on the formulation of policy. It is largely responsible for the development of an integrated and co-operative health program and for the establishment of services for the benefit of Provincial Health Departments by the Federal Government. Dominion-Provincial Committees under the Dominion Council of Health deal with specific aspects of public health.

The Department of National Health and Welfare carries on an active program of co-ordinating and consultative services for the provinces, through its various divisions—Venereal Disease Control, Blindness Control, Child and Maternal Health, Industrial Health, Nutrition, Mental Health, Dental Health, Epidemiology, Hospital Design, Laboratory of Hygiene, Physical Fitness, Information Services, and Research. These divisions also provide technical information and advice and, independently and in co-operation with other departments and agencies, conduct surveys and research in the development and evaluation of programs and procedures including the establishment of standards.

The Department was instrumental in calling conferences of interested individuals and representatives of various organizations to consider the problems of cancer and arthritis. These meetings resulted in the establishment in 1947 of the National Cancer Institute of Canada and in 1948 of the Canadian Arthritis and Rheumatism Society.

## **Section 2.—Health Activities of the Provincial Governments**

**Newfoundland.**—In Newfoundland, where there has been little development of local government organization, administration of health measures is largely centralized in the Department of Public Health and Welfare. In addition to public health functions the Department, which was established in 1934, administers hospitals and is responsible for the provision of medical care in large areas of the Province. When Newfoundland entered Confederation, Mar. 31, 1949, separate portfolios for Health and Welfare were established.

The Public Health Division of the Department is under the administration of a Director of Medical Services. Specific functions of the Division include: provision of medical care to the indigent; operation of hospitals, the cottage hospital scheme and nursing services; the carrying on of tuberculosis, communicable disease and venereal disease control programs, and inspection services. A trained nutritionist directs publicity and education programs in nutrition, and the Department takes an active part in school health programs both through educational work and by such activities as the distribution to schools of chocolate milk powder and cod liver oil for school children.

A free service is provided through the Tuberculosis Dispensary at St. John's which makes diagnostic and treatment services available to the city and acts as a centre for Tuberculosis Control for the Province. All cottage hospitals are equipped

for X-ray. The Province subsidizes separate tuberculosis control programs in the northern areas of the Province conducted by the International Grenfell Association and the Notre Dame Bay Memorial Hospital and assists with Newfoundland Tuberculosis Association surveys in other areas.

Free treatment for venereal disease is available throughout the Province. Free drugs are distributed for use in all areas and doctors are reimbursed for treatment provided.

At St. John's the Department operates a General Hospital, a Tuberculosis Sanatorium and a Hospital for Mental and Nervous Diseases. In the outports it operates 14 cottage hospitals, with a total capacity of about 500 beds, and a number of nursing stations. The Infants Home and the Home for the Aged and Infirm are departmental institutions also located at St. John's. The Government is building at Corner Brook a new provincial tuberculosis sanatorium and is providing financial assistance in the construction of a general hospital. Other hospitals are reimbursed for departmental cases at a per diem rate. The Grace Hospital at St. John's receives an annual grant of about \$14,400 for maternity cases. Substantial grants are made to the Notre Dame Bay Memorial Hospital and Clinic and to the International Grenfell Association, which serve the Notre Dame Bay area, and the White Bay and St. Barbe Districts and Labrador, respectively.

Under the cottage hospital scheme the head of each family pays \$10 and each single adult \$5 annually for medical and hospital care. Services available to subscribers include out-patient diagnosis and treatment, hospitalization as required, admission to hospital for complicated maternity cases, domiciliary visits by the doctor and admission to the cottage hospital, the General Hospital at St. John's or, when necessary, to hospitals in other provinces. A charge is made for medicines, a nominal fee is charged for dental extractions and there is a fee of \$10 for maternity cases. The subscriber provides his own transportation. Medical officers in charge of the cottage hospitals receive a basic retaining fee, payments for prophylactic inoculations, for certain surgical procedures and for venereal disease treatments and two-thirds of the fees collected in the hospital district; part-time District Medical Health Officers are paid annual subsidies for departmental work in addition to fees for special services. Other doctors are reimbursed for services to indigents on a fee basis. In districts not served by doctors nursing services are provided on payment of an annual fee of \$6 per family or \$3 for a single person.

**Prince Edward Island.**—In 1946 the Department of Public Welfare, which administered both health and welfare functions, was reorganized as the Department of Health and Welfare.

Under the supervision of the Chief Health Officer the staff of the Health Division of the Department includes a Director of the Divisions of Laboratories and of Venereal Disease Control, a Sanitary Engineer, a Director of Public Health Nursing, and a Medical Superintendent in charge of the Falconwood Hospital for mental diseases and the Provincial Infirmary for the poor and infirm.

The Province is divided into five districts; a public health nurse is assigned to each district and is responsible for general public health services such as the inspection of school children, immunization clinics, home-visiting and home-nursing classes. One nurse specially trained in the treatment of venereal disease and another specially trained in combating tuberculosis have the entire Province as their field of operation.



The Division of Laboratories consisting of Histology, Bacteriology, Serology, Hematology and Biochemistry laboratories, aids hospitals and practising physicians of the Province.

The Provincial Government operates, at Charlottetown, a Provincial Sanatorium of 145-bed capacity under a Board of Commissioners. An annual grant is made to aid ex-sanatorium patients when required and to provide assistance to indigent tubercular persons awaiting admission and to their families. Field work in the diagnosis and treatment of tuberculosis is one of the responsibilities of the Health Division and clinics are held periodically at central points in the Province. The Prince Edward Island Tuberculosis League, a voluntary organization, works in close co-operation with the Provincial Sanatorium and the Health Division. A 20-bed hospital for crippled children is maintained at the Provincial Sanatorium.

The Department of Health and Welfare operates two venereal disease clinics, one at Charlottetown and the other at Summerside; hospital beds are provided for selected cases. All necessary medication is supplied free of charge to persons who are not within reach of public health clinics.

Grants are made to all general hospitals at a rate of 75 cents per diem for all patients. These general hospitals in turn agree to accept without charge all indigent persons requiring treatment. Expenses in connection with the operation of a hospital for the insane are borne practically in full by the Provincial Government.

**Nova Scotia.**—The Nova Scotia Department of Public Health administers a province-wide program of public health services. Its principal divisions are Public Health Nursing, Industrial Hygiene, Neuropsychiatry, Physical Fitness and Nutrition, Sanitation and Laboratories.

The Province is divided into eight health divisions, seven of which are under the direction of, and are financed by, the Province. The city of Halifax, which constitutes the eighth, receives partial support from the Province. Each division is staffed by public health nurses and sanitary inspectors and is under the supervision of a Director or, in the case of Halifax, a Commissioner. The divisions are equipped with portable X-ray and other apparatus and provide the following services: health education, communicable disease control, environmental sanitation, public health nursing, and maternal, infant and child hygiene.

Diagnostic services including bacteriological and other examinations and milk and water analyses are provided to physicians and health divisions by the Provincial Laboratories. Streptomycin for tuberculosis and penicillin for venereal disease cases are provided by the Province.

Five provincially owned hospitals are operated under the direction of the Department, including the general hospital, three tuberculosis sanatoria, and the Nova Scotia Hospital for mental cases. A cancer clinic and a "Kenny" treatment clinic for poliomyelitis are attached to the general hospital. Treatment for tuberculosis is free, and free care for mental illness is given in the Nova Scotia Hospital.

A provincial per diem subsidy is given to all approved hospitals for each patient receiving treatment. In 1949 provision was made for supplementary provincial grants covering the whole or part of the cost of medical services to recipients of mothers' allowances.

**New Brunswick.**—The Department of Health and Social Services has evolved from the Department of Health established in 1918 under the New Brunswick Health Act. The administration of the Health Branch is carried on by the Chief



Medical Officer, who is also Registrar-General. Provincial Government hospitals consisting of two tuberculosis sanatoria and one mental hospital are operated under the supervision of medical superintendents. Divisions supervised by full-time Directors are: Hospital Services, Laboratory Services, Public Health Nursing, Venereal Disease Control, Tuberculosis Control, Maternal and Child Welfare, Mental Health, Cancer Control, Sanitary Engineering, and Dental Hygiene. Seven Medical Health Officers are engaged in District work.

Health services are administered through 16 sub-health districts; 15 of these are coterminous with the counties of the Province, and the city of Fredericton forms the sixteenth. Two or three sub-districts are grouped under the supervision of one District Medical Health Officer, who is responsible for the enforcement of public health legislation within the area.

District Health Officers assisted by public health nurses administer a preventive program of disease control, laboratory service, child and school hygiene, sanitation, immunization and health education. Municipal nurses and the Victorian Order of Nurses are subsidized by the Provincial Department of Health to aid in this work. Consultative and educational services are provided in the fields of dental hygiene, maternal and child welfare, nutrition and sanitation. The Provincial Department exercises supervision over the sub-district Boards of Health.

Clinics within the health districts provide X-ray and diagnostic services for tuberculosis. Cancer diagnostic clinics provide free diagnosis with free tissue examination for clinic biopsies. Free treatment is provided for indigents suffering from venereal disease through fees for service to physicians or at clinics, and free hospitalization is given when required. Acute and immediate post-paralytic phases of poliomyelitis are hospitalized at provincial expense. Pneumothorax treatment for convalescent tuberculosis patients is supplied by the Province by payment of physicians' fees. The Health Department supervises three sanatoria in addition to the two owned by the Province, and operates clinics in the larger centres.

Mental health services have been recently organized and expanded to include free preventive and diagnostic clinics. The Provincial Mental Hospital provides treatment of which approximately 60 p.c. of the cost is borne by the Province.

Pathological, bacteriological, serological and chemical tests are provided by the Provincial Laboratories whose Director also supervises the distribution of vaccines, sera and bacteriologicals, including free immunizing agents, drugs for venereal diseases and insulin for indigent diabetics.

Hospital care is subsidized by a provincial per diem grant to approved hospitals for all patients. Hospitalization in tuberculosis sanatoria is provided to all free of charge.

**Quebec.**—The Ministry of Health, established in 1936, deals with matters relating to health, preventive medicine and public charities. It replaced the Provincial Bureau of Health that had operated since 1922 under the Provincial Secretary.

The Ministry of Health maintains the following divisions: Laboratories, Sanitary Engineering, Demography, Hospitals for the Insane, Public Charities, Health Units, Epidemiology, Industrial Health, Nutrition (including Maternal and Child Health), Venereal Diseases, Tuberculosis, Health Education, Foster Home Care, and Medical Service for Settlers.

Three important Acts were passed at recent sessions of the Quebec Legislature designed respectively to facilitate the medical studies of young physicians who pledge themselves to practise in rural areas, to subsidize the establishment of a School of Hygiene at the University of Montreal, and to launch a five-year program aimed at providing 2,000 additional beds for the control of tuberculosis.

Since 1926, a system of county health units has been gradually established. Each unit provides full-time public health service to a county or a group of two or three adjoining counties. There are now 64 county health units covering 74 counties; the Ministry of Health is responsible for their maintenance and operation; local contributions amount to 6.5 p.c. of the cost. Eighteen municipalities, such as the cities of Montreal, Quebec and Sherbrooke, have their own Health Bureaus.

Local health services include free dental, anti-tuberculosis, well-baby and immunization clinics, and consultation and home visits. These are in addition to the usual sanitation measures, the collection of vital statistics, the supply of biologicals, and health education. Hospitalization and certain forms of medical aid are supplied to indigents and the inhabitants of sparsely settled areas.

Drugs supplied by the Provincial Department to physicians and health units include vaccines, sera, antitoxins; a Federal grant pays for streptomycin for sanatoria patients and also helps to provide laboratory services to physicians and health units.

Public mental institutions are operated by the Health Department; tuberculosis sanatoria, operated chiefly under private and religious auspices, are supervised by the Department. Mental and tuberculosis institutions and hospitals are subsidized by Provincial and municipal grants; indigents are provided with hospital care through equal contributions of the hospital board, the municipality and the Province.

**Ontario.**—The Department of Health is organized under a Minister, a Deputy Minister who is also Chief Medical Officer, and an Assistant Deputy Minister. The Department carries on public health services through the following divisions: Public Health Administration; Public Health Nursing; Maternal and Child Hygiene; Dental Services; Epidemiology; Venereal Disease Control; Tuberculosis Prevention; Industrial Hygiene; Laboratory Services; Administration of Mental Hospitals; and Sanitary Engineering. There are also divisions for the supervision of certain aspects of medical treatment centres throughout the Province, including public general and private hospitals and nurse registration. Serving all divisions of the Department are the Legal Division and the Medical Statistics Division.

Public health legislation affecting water supplies, milk and food sanitation and all other forms of environmental sanitation is administered by the Department. Provincial public health nurses aid local Boards of Health in the organization and promotion of public health nursing services. The 15 branch laboratories (nine regional and six subsidized) carry out bacteriological and other examinations for clinics, hospitals and private physicians.

The Division of Industrial Hygiene is responsible for the control of occupational diseases and acts as adviser to the Factory Inspection Branch of the Labour Department, the Workmen's Compensation Board and to industry generally.

In addition to care provided through maternal and child health clinics, any resident mother may have one free prenatal examination; doctors are remunerated by the Provincial Government. Biologicals and other materials for the prevention and control of acute communicable diseases, insulin for diabetics and streptomycin for tuberculosis patients, are distributed free of charge by the Department.

Care is provided for the mentally ill in 15 institutions operated by the Provincial Government. Three special units are concerned with the care of epileptics, the tuberculous and the criminally insane. Travelling mental health clinics are organized and operated with the assistance of district consultant psychiatrists.

Public health services are administered by health units and urban health departments under the supervision of the Provincial Department and with provincial financial support. Twenty-four health units have been completed and the northern part of the Province, which is still unorganized, is provided for directly by the Department of Health.

Clinical care in the local health units is supervised by the appropriate divisions of the Department; consultative services, diagnosis and minor treatment are provided for venereal disease; four chest clinics are maintained for tuberculosis at various points in the Province and three travelling mass-survey units are operated; a railway dental car serves certain areas in the northern part of the Province and the Division of Dental Services is responsible for dental health education programs and clinics in hospitals and other institutions.

Limited medical services are provided to old age pensioners and other recipients of social assistance under an agreement with the Ontario Medical Association. Necessary hospital care is supplied to indigents through a daily grant paid to hospital boards by provincial and municipal authorities. The hospitals in Ontario are graded according to size and type and a maximum provincial and municipal per diem grant is fixed for each grade. Tuberculosis sanatoria, operated under provincial or private auspices, are subsidized by provincial grants. Provincial grants-in-aid are given to local boards of health for dental services and for venereal disease clinics. Financial assistance is offered for post-graduate study in public health nursing.

In the academic year 1947-48, financial aid was extended to seven doctors, 29 nurses, one veterinarian and two sanitary engineers to assist them in the pursuit of studies in public health. Grants-in-aid were also paid to the six County Public Health School Nursing Services operating in 1948.

**Manitoba.**—In Manitoba health activities are administered in co-ordination with welfare services by the Department of Health and Public Welfare under the direction of a Minister. The Department has four main divisions: General Administration; Health Services; Psychiatric Services; and Welfare Services.

The Division of Health Services has four sections: (1) Environmental Sanitation, (2) Preventive Medical Care including communicable disease control, maternal and child hygiene and public health nursing, (3) Extension Health Services including consultative services for, and general administration of local units, diagnostic services and medical care, and (4) Laboratory Services.

The Division of Psychiatric Services supervises the provincial mental institutions at Winnipeg, Selkirk, and Brandon and a school for the mentally defective at Portage la Prairie. This division is also responsible for out-patient services, child guidance clinics, services to courts and child-caring agencies, boarding-home care for the mentally ill, and teaching facilities.

The Province is divided into health regions composed of groups of municipalities, with hospital districts, medical care districts, medical-nursing units, and diagnostic centres within these regions. The Province subsidizes the employment of doctors on a prepayment plan in medical care districts within the health regions. Outside these districts nurses provide emergency care particularly to maternity patients and operate immunization and child and maternal health clinics.



Diagnostic centres are being established throughout the Province to serve as headquarters for consultant radiologists and pathologists and to furnish laboratory diagnoses, cardiography and electroencephalography free of charge, and X-rays at a small minimum charge, to any resident within the diagnostic area referred thereto by a medical practitioner. Centres at Selkirk and Dauphin are already in operation.

Clinics provide preventive and treatment services for tuberculosis, venereal disease, mental illness and cancer. Care provided for tuberculosis includes pneumothorax and other treatment in out-patient clinics of sanatoria, and X-rays and diagnoses at mobile and stationary clinics operated by the Department. Venereal disease clinics supply free diagnosis and minor treatment. The Manitoba Cancer Relief and Research Institute which is subsidized by the Province correlates all cancer activities. A cancer biopsy service is available without charge to all rural physicians and is being extended to other physicians and to hospitals lacking pathological services of their own; X-ray therapy may be obtained without charge by those living outside Winnipeg. Through the out-patient services of the mental hospitals psychiatric examinations and case-work help are given to those who are referred by physicians and social agencies.

Drugs are distributed to doctors, hospitals and government agencies throughout the health units by the Provincial Health Department; penicillin and drugs used in venereal disease treatment, insulin and other biologicals are included; Federal grants-in-aid pay for streptomycin and other antibiotics provided, without charge, to tuberculosis patients in sanatoria.

Recipients of public assistance are entitled to the services supplied within the health regions by medical care and medical nursing districts and diagnostic centres. The Provincial Government provides medical and hospital care for patients from unorganized territory and also gives dental, optical and pharmaceutical supplies to public aid recipients.

The Provincial Government pays two-thirds of the cost of preventive medical services, one-half the cost of diagnostic and specialist services and one-half the cost of dental care in addition to grants for hospital construction and local health services. The remainder of the cost is met by the municipalities. The Provincial Government also contributes a per diem grant to hospitals and sanatoria on behalf of all public ward patients, a lump sum grant to teaching hospitals and pays hospitalization charges for indigents from unorganized areas.

**Saskatchewan.**—Health activities in Saskatchewan are administered under the Department of Public Health and a Health Services Planning Commission set up under the terms of the Health Services Act, 1946.

The Department of Public Health consists of 14 divisions which conduct, supervise and assist with various aspects of the public health program including the following: the Public Health Nursing Division which supervises maternity grants and provides field services for venereal disease, tuberculosis, mental health and other programs; the Communicable Diseases Division which distributes free vaccines and sera to doctors, health departments and hospitals and supervises immunization programs and poliomyelitis clinics; the Division of Laboratories, which does routine work in bacteriology, serology, chemistry and pathology and provides clinical diagnostic service for rural physicians; the Mental Services Division which organizes and supervises mental institutions and clinics; the Venereal Disease Control Division which administers diagnostic and treatment services and epi-



epidemiology and supervises public clinics. An Air Ambulance Service provides emergency transportation at a nominal charge of \$25 per flight. Other divisions are: Administration, Sanitation, Vital Statistics, Health Education, Nutrition, Regional Health Services and Dental Health. A division of Child and Maternal Hygiene is being organized to conduct crippled children's services.

The Saskatchewan Cancer Commission, with the Deputy Minister of Public Health as chairman, operates consultative, diagnostic and treatment clinics at Saskatoon and Regina serving all residents at public cost. Poliomyelitis clinics are operated at Saskatoon and Regina at public expense, as circumstances warrant. Diagnostic and treatment services for all tuberculous persons are provided at public expense in three sanatoria operated by the Saskatchewan Anti-Tuberculosis League with government supervision. Stationary and mobile tuberculosis clinics give diagnostic service and pneumothorax treatments. Mental hospital care is provided without charge to any resident in need of it.

Under the Health Services Act, 1946, the Province is divided into 14 potential Health Regions, six of which have been organized. In each region a regional health board is established which, assisted by advisory committees on dentistry, nursing and medicine, administers general public health services.

Health Districts within the Region are represented on a District Health Council. Public health nursing, dental care and clinical facilities are provided; general practitioner care and specialist services are as yet provided only in the one Health Region where the plan is in full operation. In some districts within the other Regions, a municipal doctor system has been in operation for many years; under this system a contract between the municipal authority and a duly qualified medical practitioner provides for the services of the latter to all bona fide residents of that municipality. Legislation in 1949 provided for compulsory pasteurization of milk sold for human consumption in cities and towns of 1,000 population or over.

The Health Services Planning Commission administers the Saskatchewan Hospital Services Plan and supervises hospital planning, construction, and administration, and all approved hospitals and nursing homes. It is also an advisory and consultative body to health regions, municipalities, local improvement districts, district union hospitals, municipal and voluntary health plans, and it is responsible for administration of medical care and hospital construction grants. The Commission's Medical Services Division supervises payment of grants to physicians, dentists, and approved hospitals for indigents outside municipal jurisdictions.

The Saskatchewan Hospitalization Act, 1948, provides prepaid hospital care throughout the Province. It covers public ward accommodation, operating and case room facilities, drugs, surgical dressings and X-rays. Under the scheme all persons are covered, except those otherwise provided for by the Government (e.g., members of the Armed Forces and persons in institutions). The cost of the hospitalization is met by a personal tax of \$10 per annum per person, with a maximum of \$30 per family. The Provincial Treasury meets any deficit and also pays the tax for pensioners and public assistance recipients, except in the case of those public assistance recipients who are a charge on the municipality and for whom the municipality pays the tax.

A complete medical care scheme in operation in Health Region No. 1, the Swift Current area, composed of 87 predominantly rural municipalities, serves 54,000 persons. This plan includes general practitioner and specialist services, diagnostic and out-patient services and children's dental care. Hospitalization is

provided for separately under the Saskatchewan Hospitalization Act. The plan is financed by a fee of \$15 per capita with a family maximum of \$35, a general property tax, and a provincial per capita grant for general medical care and public health services, and a provincial contribution of one-half the cost of radiological and dental services.

Medical, hospital, dental, optical and part drug services are provided at public expense to old age and blind pensioners and their dependants and to beneficiaries of mothers' allowances.

**Alberta.**—The Department of Public Health was established in 1919 and was given the authority and responsibility for administering all the statutes of the Province relating to health. The Public Health Act passed in 1907, established the Provincial Board of Health that now consists of three members, the Provincial Medical Officer of Health, the Provincial Sanitary Engineer, and the Provincial Bacteriologist.

The Department consists of the following 14 divisions: Communicable Disease, Public Health Education, Hospital and Medical Services, Laboratory, Public Health Nursing, Municipal Hospitals, Social Hygiene, Sanitary Engineering and Sanitation, Cancer Services, Mental Health, Tuberculosis Control, Entomology, Vital Statistics, Nutrition Services.

Alberta administers its public health program for urban and for rural areas through health units and 18 Rural Health Districts; the program includes infant and child welfare clinics and pre- and post-natal instruction. In isolated areas District Nursing Units are set up; they supply first-aid and obstetrical services and are equipped with drugs and medical and surgical supplies.

Clinics operated by the Department provide the following free services to the general public: diagnosis and treatment, including drugs, for venereal disease; medical examination for cancer; mental guidance and psychiatric examinations; physical and X-ray examinations and tuberculin tests for tuberculosis at stationary and travelling clinics and mobile X-ray units; post-discharge treatment of poliomyelitis cases. The Communicable Diseases Division supplies biological products for preventive work. The services of the Provincial Laboratory are available to all doctors, Boards of Health and approved hospitals. The Laboratory distributes sera and biological products.

The Department pays for hospitalization for a period not exceeding 14 days on behalf of cancer patients admitted to hospital for diagnostic treatment on the order of the cancer clinics. Surgical, X-ray or radium treatment is also available if recommended by the clinic. Mental care in institutions is supervised by the Department of Public Health and patients unable to pay are treated at public expense. Hospitalization in provincial tuberculosis sanatoria is provided without charge for all resident tuberculosis patients. Out-patient pneumothorax services are also available.

The Province has a complete medical care program, including hospitalization, dental care and eye-glasses for old age and blind pensioners, recipients of mothers' allowances and the dependants of these groups. The Department also provides for all residents suffering from the after-effects of poliomyelitis free medical, surgical and hospital care and rehabilitation services. An amendment in 1949 to the Bureau of Public Welfare Act made provision for the hospital and medical care

of children suffering from rheumatoid arthritis. Maternity patients may be hospitalized at provincial expense for a twelve-day period. In addition a small money grant may be given to any expectant mother in poor financial circumstances.

One-third of the population of the Province is provided with hospitalization at a minimum charge through the Municipal Hospitals Act. Under its terms general ward care is provided to the residents of municipalities which unite to form a Hospital District and to non-residents who pay a fixed annual fee. The charge to patients under the Act is fixed at \$1 per day; the remainder of the cost under the scheme is obtained through a property tax levied within the District and a provincial per diem grant. Any services additional to standard ward care must be paid for by the patient.

Provincial grants-in-aid to Health Units cover 60 p.c. of the total cost of operation. In addition the Department pays 70 cents per patient per day for a specified period to approved hospitals. It makes an orthopaedic grant to hospitals of 90 cents per day and pays one-third of the cost of a special mental hygiene service in the schools of the Edmonton Rural Health Unit. A grant, equivalent to the salary of one nurse, is paid to the City of Edmonton Health Department for a Child Hygiene Clinic.

**British Columbia.**—The Department of Health and Welfare, with one Cabinet Minister, has two branches under the supervision of the Deputy Minister of Health and the Deputy Minister of Welfare, respectively.

The Health Branch is divided into three bureaus, two of which are located at Victoria while the other is at Vancouver. The Bureau of Local Health Services, located at Victoria, consists of the Nutrition Service and the Division of Health Units, Public Health Nursing, Environmental Sanitation, and Preventive Dentistry. Also at Victoria are headquarters of the Divisions of Vital Statistics and Public Health Education which are grouped in the Bureau of Central Administration. The Divisions of Tuberculosis Control, Venereal Disease Control and Laboratories have their headquarters at Vancouver, and are grouped in the Bureau of Special Preventive and Treatment Service.

In addition to certain province-wide activities, the Health Branch through its Bureau of Local Health Services supervises local public health activities. The Province is divided into Health Units and Public Health Nursing Districts each consisting of several school districts. Nine of the 18 Health Units planned are in operation and a generalized health program is provided by a physician, public health nurses, a sanitary inspector and a statistical clerk. In more isolated areas, the Public Health Nursing Districts staffed by public health nurses and sanitary inspectors operate as forerunners to Health Units. Vancouver and Victoria have their own Health Departments, while some of the other centres have part-time medical officers. With the exception of the latter and the Vancouver and Victoria staffs all field public health personnel are employed by the Provincial Department. Approximately 94 p.c. of the population of the Province is served by full-time trained public health personnel.

General public health services are operative throughout the Health Units and unorganized territory. Stationary and mobile tuberculosis clinics provide free diagnostic and consultative service to all residents; venereal disease clinics stationed



at strategic points throughout the Health Units provide free diagnosis and treatment for all who require them; maternal and child health clinics including immunization and pre- and post-natal advice are operated by public health nurses. Several specialized divisions of the Health Branch provide consultative service and guidance to the field staff, other departments, and official and voluntary agencies. There are branch laboratories in various parts of the Province and the Division of Laboratories distributes immunizing agents free of charge to doctors, health officers and public health nurses.

Except in the two metropolitan areas where special grants are made under previous arrangements, approximately one-third of the cost of health services is borne by the local districts and the remainder by the Provincial Government with assistance from the federal health grants.

Institutions for the hospital care of tuberculosis and of mental patients, and Provincial Infirmaries for persons with incapacitating disabilities, are operated by the Provincial Government; indigents are hospitalized in these institutions at public expense. The Hospitals Act provides for provincial and municipal financial aid to hospitals.

Full medical, surgical and obstetrical care is provided to recipients of social assistance and to their dependants; these persons are also covered under the terms of the Hospital Insurance Act, and have their premiums paid from provincial funds.

An important medical care measure was inaugurated in British Columbia on Jan. 1, 1949, when the provisions of the Hospital Insurance Act came into effect. Residents are provided with public ward care including operating and case room facilities, X-ray and laboratory, diagnostic and therapeutic procedures, anaesthetics, dressings and prescribed drugs. The plan is financed by a premium of \$15 per annum levied upon each adult, with a family maximum of \$30 for the first year but these rates were increased for 1950 to \$21 and \$33, respectively.

### Section 3.—Institutional Statistics\*

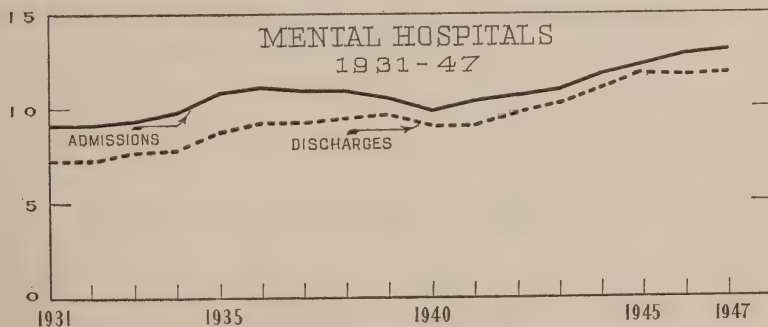
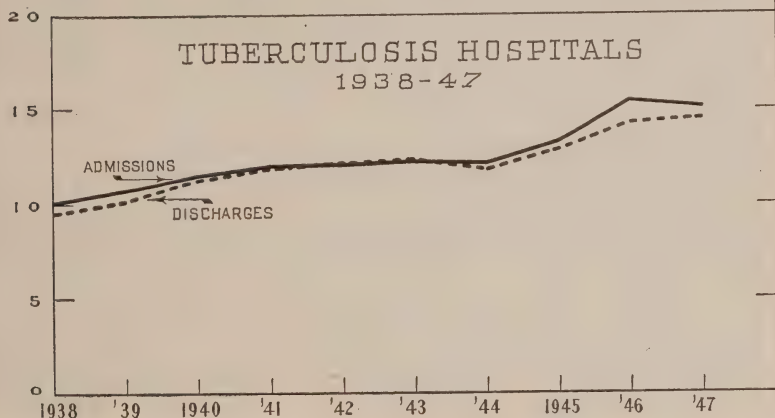
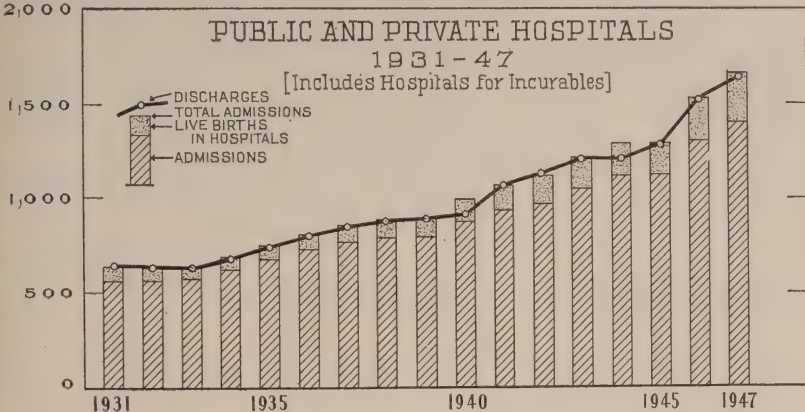
Since 1930, under authority granted by the Federal Government, the Dominion Bureau of Statistics has co-operated with the provincial authorities through the Census of Institutions in the collection of nation-wide statistics for the following types of institutions: *Hospitals*—institutions primarily engaged in the prevention, cure or alleviation of physical sickness and disease, such as hospitals for the sick, sanatoria, and institutions for incurables and those under the heading "Federal Hospitals" in Table 1. *Mental and Neurological Institutions*—such as hospitals for mental diseases, institutions for the feeble-minded, epileptic, etc., devoted to the treatment and care of mental ailments. *Charitable and Benevolent Institutions*—caring for the poor and the destitute of all ages, such as homes for the aged, county refuges, orphanages, etc. A summary of statistics for charitable institutions for 1946 appears at p. 288. Statistics for corrective and reformatory institutions for 1946 are summarized at p. 308 of the 1948-49 edition of the Year Book.

\* Except as otherwise noted, this Section has been revised in the Health and Welfare Division of the Dominion Bureau of Statistics, Institutions Section.



# ADMISSIONS TO AND DISCHARGES FROM HOSPITALS IN CANADA

1,000  
2,000



## 1.—Hospitals Operating in Canada, by Provinces, 1947

Type of Institution	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Population (1947 estimate, 000's omitted).....	94	621	491	3,712	4,189	743	842	822	1,044	24	12,582
<b>Public Hospitals—</b>											
Acute Diseases— <sup>1</sup>											
General.....	6	28	23	68	117	37	117	95	71	9	571
Special.....	—	11	4	20	37	3	10	5	9	—	99
Totals.....	6	39	27	88	154	40	127	100	80	9	670
Chronic diseases.....	—	—	1	3	10	1	2	2	3 <sup>2</sup>	—	22
Mental Institutions—											
Provincial hospitals....	1	1	1	7	13	2	2	4	3	—	34
Training schools.....	—	1	—	—	1	1	1	1	—	—	5
Psychiatric hospitals....	—	—	—	—	1	1	—	—	—	—	2
County and municipal hospitals.....	—	14	—	—	—	—	—	—	—	—	14
Totals, Mental Institutions	1	16	1	7	15	4	3	5	3	—	55
Tuberculosis sanatoria....	1	4	5	13	13	4	3	1	1	—	45
Units in other hospitals <sup>3</sup> ..	—	8	1	17	3	6	—	4	11	—	50
<b>Totals, Public Hospitals.</b>	<b>8</b>	<b>59</b>	<b>34</b>	<b>111</b>	<b>192</b>	<b>49</b>	<b>135</b>	<b>108</b>	<b>87</b>	<b>9</b>	<b>792</b>
<b>Federal Hospitals—</b>											
Department of Veterans Affairs.....	—	3	3	5	11	2	2	4	4	—	34
Department of National Health and Welfare—											
Quarantine and marine....	—	4	1	1	—	—	—	—	1	—	7
Leprosy.....	—	—	—	—	—	—	—	—	1	—	1
Indian Health Service....	—	—	1	—	3	6	2	5	3	—	20
Department of National Defence.....	—	2 <sup>4</sup>	—	2	6	4	—	1	4	2	21
<b>Totals, Federal Hospitals.</b>	<b>—</b>	<b>9</b>	<b>5</b>	<b>8<sup>5</sup></b>	<b>20<sup>5</sup></b>	<b>12</b>	<b>4</b>	<b>10</b>	<b>13</b>	<b>2</b>	<b>83</b>
<b>Private Hospitals<sup>6</sup>.....</b>	<b>—</b>	<b>8</b>	<b>4</b>	<b>47</b>	<b>54</b>	<b>6</b>	<b>39</b>	<b>19</b>	<b>36<sup>7</sup></b>	<b>1</b>	<b>214</b>
<b>Totals, All Hospitals.....</b>	<b>8</b>	<b>76</b>	<b>43</b>	<b>166</b>	<b>266</b>	<b>67</b>	<b>178</b>	<b>137</b>	<b>136</b>	<b>12</b>	<b>1,089</b>

<sup>1</sup> Excluding incurable, convalescent, mental and tuberculosis institutions. <sup>2</sup> Provincial Infirmary and two branch hospitals. <sup>3</sup> Not included in totals. <sup>4</sup> Includes Station Hospital, Halifax (25 beds), closed April, 1947. <sup>5</sup> Reporting units. <sup>6</sup> Includes one mental division of one hospital. <sup>7</sup> Includes one private mental institution.

2.—Number of Beds and Bassinets, by Types and Provinces, 1947, in 1,069 Reporting Hospitals<sup>1</sup>

Type of Institution	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
<b>Public Hospitals—</b>											
ACUTE DISEASES—											
General—											
Beds.....	453	2,519	2,145	11,340	12,738	3,126	4,035	4,912	5,394	339	47,001
Bassinets.....	69	457	391	1,358	2,491	601	871	892	817	27	7,974
Special—											
Beds.....	—	274	50	3,537	1,471	354	91	97	190	—	6,064
Bassinets.....	—	106	34	270	245	—	34	25	59	—	773
Totals, Acute Diseases—											
Beds.....	453	2,793	2,195	14,877	14,209	3,480	4,126	5,009	5,584	339	53,065
Bassinets.....	69	563	425	1,628	2,736	601	905	917	876	27	8,747

<sup>1</sup> Twenty hospitals did not report.

**2.—Number of Beds and Bassinets, by Types and Provinces, 1947, in 1,069 Reporting Hospitals<sup>1</sup>—concluded**

Type of Institution	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
<b>Public Hospitals—conc.</b>											
CHRONIC—											
Beds.....	—	—	85	114	1,643	425	224	145	329	—	2,965
MENTAL— <sup>2</sup>											
Beds.....	250	2,603	900	13,845	15,864	2,471	3,670	2,538	3,039	—	45,180
TUBERCULOSIS— <sup>3</sup>											
Beds.....	145	676	847	2,580	3,739	613	803	288	780	—	10,471
<b>Federal Hospitals—</b>											
DEPARTMENT OF VETERANS AFFAIRS—											
Beds.....	—	820	530	2,250	3,747	986	215	481	1,618	—	10,647
DEPARTMENT OF NATIONAL HEALTH AND WELFARE— <sup>4</sup>											
Beds.....	—	76	14	200	68	395	—	460	597	—	1,810
Bassinets.....	—	—	3	—	10	5	—	18	23	—	59
DEPARTMENT OF NATIONAL DEFENCE—											
Beds.....	—	200	—	75	350	100	—	50	165	50	990
<b>Private Hospitals—</b>											
Beds.....	—	42	100	1,081	848	105	146	140	780	17	3,259
Bassinets.....	—	21	29	170	247	16	104	30	24	6	647
<b>Totals, All Hospitals—</b>											
Beds.....	848	7,210	4,671	35,022	40,468	8,575	9,184	9,111	12,892	406	128,387
Bassinets.....	69	584	457	1,798	2,993	622	1,009	965	923	33	9,453

<sup>1</sup> Twenty hospitals did not report.<sup>2</sup> Includes one private hospital in Ontario and one in British

Columbia.

<sup>3</sup> Not including tuberculosis units nor Federal hospitals for tuberculosis.<sup>4</sup> Excluding two hospitals in Manitoba and two in Saskatchewan.

**Subsection 1.—Statistics of Hospitals, Other Than Mental**

Summary statistics of reporting public and private hospitals for the years 1943-47 are given in Table 3, while Table 4 gives more detailed information regarding public hospitals for 1947.

**3.—Summary Statistics of Reporting Public and Private Hospitals, 1943-47**

NOTE.—Figures do not include hospitals and homes for incurables, Federal, mental, or tuberculosis hospitals.

Item	1943	1944	1945	1946	1947
	No.	No.	No.	No.	No.
<b>Public Hospitals—</b>					
Units reporting.....	611	586	588	595	653
Bed capacities <sup>1</sup> .....	61,070	59,010	59,324	61,324	61,812
Patients under treatment <sup>2</sup> .....	1,204,170	1,269,427	1,351,955	1,504,893	1,633,069
Total collective days' stay <sup>2</sup> .....	15,562,644	14,975,802	15,706,159	16,818,176	17,250,382 <sup>3</sup>
<b>Private Hospitals—</b>					
Units reporting.....	264	267	234	235	212
Bed capacities <sup>1</sup> .....	4,251	4,579	4,083	4,074	3,906
Patients under treatment <sup>2</sup> .....	52,045	53,224	50,977	58,216	61,434
Total collective days' stay <sup>2</sup> .....	857,332	905,614	929,991	882,356	934,196

<sup>1</sup> Includes beds, cribs and bassinets. and incurable units.<sup>2</sup> Includes newborn.<sup>3</sup> Does not include tuberculosis

For Canada as a whole, 653 public hospitals reported in 1947, of which 559 were general hospitals. Of the total public hospitals reporting, 515 had X-ray facilities, 357 had clinical laboratories and 263 had physio-therapy facilities.

During 1947, patients receiving treatment numbered 1,633,069; admissions numbered 1,348,857; discharges 1,549,254; live births 243,792; and deaths, 42,283. Financial returns which met the requirements of the Dominion Bureau of Statistics were provided by 588 hospitals which reported total collective days' stay numbering 17,379,231; receipts, \$107,308,818; expenditures, \$106,792,011; and average cost per patient day, \$5.55.

#### 4.—Summary Statistics of Reporting Public Hospitals, by Provinces, 1947

NOTE.—Figures do not include hospitals and homes for incurables, Federal, mental, tuberculosis or private hospitals.

Item	Yukon and N.W.T.	Prince Edward Island	Nova Scotia		New Brunswick	
			General <sup>1</sup>	Special	General	Special
	No.	No.	No.	No.	No.	No.
Hospitals reporting.....	9	6	28	10	23	4
Approved schools of nursing...	—	3	13	1	13	—
<b>Personnel—</b>						
Salaried doctors, full-time...	2	—	8	1	6	—
Interns.....	—	—	39	5	15	—
Graduate nurses.....	23	49	376	50	321	15
Student nurses.....	—	104	617	62	574	—
Other.....	93	190	1,270	205	1,129	19
<b>Totals, Personnel.....</b>	<b>118</b>	<b>343</b>	<b>2,310</b>	<b>323</b>	<b>2,045</b>	<b>34</b>
<b>Hospital Facilities—</b>						
X-ray.....	7	6	28	1	20	1
Clinical laboratories.....	3	6	23	1	18	—
Physio-therapy.....	—	2	11	1	14	—
<b>Movement of Patients—</b>						
Admissions.....	1,971	11,985	59,794	6,163	53,186	1,183
Live births.....	154	2,213	12,573	2,437	9,601	641
Discharges.....	2,042	13,811	70,896	8,419	61,348	1,787
Deaths.....	91	343	1,602	146	1,409	32
Under treatment.....	2,310	14,525	74,355	8,807	64,266	1,847
Total collective days' stay..	67,051	137,820	711,942	82,230	636,930	14,903
<b>Finances—</b>						
Hospitals reporting.....	—	5	27	3	23	4
	\$	\$	\$	\$	\$	\$
<b>RECEIPTS—</b>						
Net earnings from patients	—	457,981	3,066,219	186,427	2,821,097	46,458
Provincial and municipal grants.....	—	81,870	411,301	42,582	222,664	2,642
Other sources.....	—	87,407	279,266	47,586	264,557	11,513
<b>Totals, Receipts.....</b>	<b>—</b>	<b>627,258</b>	<b>3,756,786</b>	<b>276,595</b>	<b>3,308,318</b>	<b>60,613</b>
<b>EXPENDITURES—</b>						
Salaries and wages.....	—	180,433	1,409,722	124,389	1,245,294	26,246
Supplies.....	—	287,253	1,789,202	141,124	1,563,394	28,550
All other expenditures.....	—	176,553	668,818	50,481	673,949	7,756
<b>Totals, Expenditures.....</b>	<b>—</b>	<b>644,239</b>	<b>3,867,742</b>	<b>315,994</b>	<b>3,482,637</b>	<b>62,552</b>
Cost per patient day.....	—	4.44	4.80	3.83	4.90	4.16

For footnote, see end of table, p. 256.



## 4.—Summary Statistics of Reporting Public Hospitals, by Provinces, 1947—continued

Item	Quebec		Ontario		Manitoba	
	General <sup>1</sup>	Special	General	Special	General	Special
	No.	No.	No.	No.	No.	No.
Hospitals reporting.....	67	20	117	37	37	3
Approved schools of nursing...	32	3	53	2	8	1
<b>Personnel—</b>						
Salaried doctors, full-time..	180	232	81	92	27	33
Interns.....	434	63	307	55	38	5
Graduate nurses.....	2,381	350	3,805	332	433	48
Student nurses.....	2,220	144	3,018	264	750	48
Other.....	8,007	1,453	11,467	1,105	1,911	252
<b>Totals, Personnel.....</b>	<b>13,222</b>	<b>2,242</b>	<b>18,678</b>	<b>1,848</b>	<b>3,159</b>	<b>386</b>
<b>Hospital Facilities—</b>						
X-ray.....	66	9	84	13	34	2
Clinical laboratories.....	54	9	72	4	22	2
Physio-therapy.....	56	8	59	6	14	2
<b>Movement of Patients—</b>						
Admissions.....	247,434	19,302	414,383	34,085	84,833	4,944
Live births.....	37,511	5,477	80,693	8,839	16,977	—
Discharges.....	276,442	23,904	480,348	42,029	99,474	4,843
Deaths.....	8,313	784	14,567	831	2,538	108
Under treatment.....	291,967	26,949	507,483	43,934	104,236	5,139
Total collective days' stay..	3,376,036	824,138	5,107,307	428,964	970,296	75,301
<b>Finances—</b>						
Hospitals reporting.....	62	16	117	9	37	3
	\$	\$	\$	\$	\$	\$
<b>RECEIPTS—</b>						
Net earnings from patients	16,611,508	1,381,026	25,673,350	1,485,952	4,259,914	234,875
Provincial and municipal grants.....	2,779,658	1,484,600	5,259,065	487,622	396,247	310,417
Other sources.....	3,747,043	596,743	2,492,452	433,472	245,169	51,721
<b>Totals, Receipts.....</b>	<b>23,138,209</b>	<b>3,462,369</b>	<b>33,424,867</b>	<b>2,407,046</b>	<b>4,901,330</b>	<b>597,013</b>
<b>EXPENDITURES—</b>						
Salaries and wages.....	10,734,827	1,579,736	16,741,423	1,256,243	2,239,257	355,327
Supplies.....	8,205,186	1,339,760	12,336,797	850,830	1,993,340	206,989
All other expenditures.....	4,821,980	796,908	4,072,251	300,133	663,965	69,857
<b>Totals, Expenditures.....</b>	<b>23,761,993</b>	<b>3,716,404</b>	<b>33,150,471</b>	<b>2,407,206</b>	<b>4,896,562</b>	<b>632,173</b>
Cost per patient day.....	5.94	4.21	5.84	4.79	4.92	4.14
	Saskatchewan		Alberta		British Columbia	
	General <sup>1</sup>	Special	General <sup>1</sup>	Special	General	Special
	No.	No.	No.	No.	No.	No.
Hospitals reporting.....	111	7	90	4	71	9
Approved schools of nursing...	10	—	10	—	7	7
<b>Personnel—</b>						
Salaried doctors, full-time..	11	—	18	—	49	—
Interns.....	27	—	37	—	69	2
Graduate nurses.....	830	18	904	19	1,466	68
Student nurses.....	873	—	858	—	891	—
Other.....	2,786	18	2,851	48	3,971	173
<b>Totals, Personnel.....</b>	<b>4,527</b>	<b>36</b>	<b>4,668</b>	<b>67</b>	<b>6,446</b>	<b>243</b>
<b>Hospital Facilities—</b>						
X-ray.....	86	5	80	1	69	3
Clinical laboratories.....	60	—	43	2	36	2
Physio-therapy.....	39	—	25	1	22	2
<b>Movement of Patients—</b>						
Admissions.....	125,537	2,255	133,516	817	144,212	3,257
Live births.....	19,681	430	20,964	685	22,597	2,319
Discharges.....	141,052	2,598	151,379	1,504	161,895	5,483
Deaths.....	3,294	33	3,220	5	4,926	41
Under treatment.....	148,268	2,685	157,920	1,617	171,038	5,723
Total collective days' stay..	1,523,401	20,179	1,452,193	37,595	1,713,591	70,506

For footnote, see end of table, p. 256.

## 4.—Summary Statistics of Reporting Public Hospitals, by Provinces, 1947—concluded

Item	Saskatchewan		Alberta		British Columbia	
	General <sup>1</sup>	Special	General <sup>1</sup>	Special	General	Special
	No.	No.	No.	No.	No.	No.
<b>Finances—</b>						
Hospitals reporting.....	106	7	87	4	69	9
<b>RECEIPTS—</b>	\$	\$	\$	\$	\$	\$
Net earnings from patients	7,698,340	66,792	5,674,096	28,269	8,760,533	218,451
Provincial and municipal grants.....	77,386	—	2,112,323	42,583	2,898,009	90,420
Other sources.....	656,375	—	503,373	71,393	2,109,702	340,369
<b>Totals, Receipts.....</b>	<b>8,432,101</b>	<b>66,792</b>	<b>8,289,792</b>	<b>142,245</b>	<b>13,768,244</b>	<b>649,240</b>
<b>EXPENDITURES—</b>						
Salaries and wages.....	3,919,672	48,659	3,945,619	74,898	7,011,032	274,367
Supplies.....	2,949,064	38,518	3,068,262	51,950	3,839,018	127,016
All other expenditures....	1,217,838	7,312	1,330,437	17,107	1,838,055	95,214
<b>Totals, Expenditures....</b>	<b>8,086,574</b>	<b>94,489</b>	<b>8,344,318</b>	<b>143,955</b>	<b>12,688,105</b>	<b>496,597</b>
Cost per patient day.....	4.98	4.64	5.38	3.82	6.65	6.53

<sup>1</sup> The following 16 hospitals did not report for 1947: General: Que. 1; Sask., 5; Alta., 5; Women's: Sask., 2; Children's: Sask., 1; Contagious Diseases: N.S., 1; Alta., 1.

**Organized Services in Public General Hospitals.**—Organized services, which are analysed in Table 5, may be defined as specialized hospital departments or services in charge of specialists with up-to-date equipment and a technical staff specially devoted to problems in the indicated fields. Facilities available in a hospital merely for the use of general practitioners are not considered as organized services. Organized services in public general hospitals only are considered here but it is in these hospitals that the majority of such services are found. Many of the smaller public general hospitals have facilities for study and treatment in the fields indicated, but since they are not organized services as defined above, such facilities are not included in the figures. In 1947, of the 653 public hospitals, 291 had organized medical staffs with 11,031 staff doctors.

## 5.—Organized Services and Medical Staffs in Reporting Public General Hospitals, by Provinces, 1947

NOTE.—A dash in this table means that an organized service was not reported.

Service and Staff	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Totals <sup>1</sup>
<b>Service</b>										
General medicine.....	3	9	16	62	53	11	19	21	19	213
Pædiatrics.....	2	3	15	47	41	8	8	13	12	149
Cardiology <sup>2</sup> .....	2	2	5	33	—	7	2	5	7	63
Dermatology.....	—	1	1	27	16	4	3	1	4	57
Neuro-psychiatry.....	—	—	—	8	10	2	1	1	4	26
Tuberculosis.....	—	6	—	17	—	—	1	4	4	32
Venerology.....	—	1	1	26	17	4	3	2	2	56
Contagious diseases.....	1	—	4	13	12	5	5	1	8	49
General surgery.....	3	9	16	60	56	11	18	20	17	210
Orthopaedics.....	1	3	5	33	37	8	6	7	7	107
Neurology.....	—	—	—	17	16	3	—	2	4	42
Dentistry <sup>2</sup> .....	—	3	2	30	1	5	2	2	3	48
Obstetrics.....	3	8	17	56	58	10	18	22	18	210
Gynaecology.....	1	6	5	43	44	9	6	7	8	129
Ophthalmology.....	1	4	4	41	32	6	4	4	6	102
Otolaryngology.....	1	2	4	50	35	6	4	3	6	111
Urology.....	1	5	3	31	35	7	5	6	9	102
Pathology <sup>2</sup> .....	1	3	6	38	1	10	4	5	11	79
Bacteriology.....	2	3	12	45	43	12	6	7	11	141
X-ray.....	4	12	16	59	50	13	8	21	16	190
Deep X-ray.....	1	2	4	26	20	2	4	3	6	68
Radium.....	2	1	1	13	17	1	2	3	4	44
Clinical laboratory.....	3	6	14	46	44	11	10	14	15	163
Physio-therapy.....	1	4	7	48	28	8	7	8	9	120
<b>Medical Staff</b>										
Organized medical staffs.....	4	28	18	67	91	14	22	20	27	291
Staff doctors.....	72	642	420	2,786	4,018	934	545	828	786	11,031

<sup>1</sup> In addition to these totals, there were the organized services and staffs of 78 hospitals which did not make returns on specific services. There were no organized services reported in Yukon and Northwest Territories hospitals.

<sup>2</sup> These items were not included on the forms used by hospitals in Ontario.

**Out-Patient Departments.**—Out-patient departments are operated in connection with hospitals or other institutions, and treat patients who do not occupy beds in the hospital. The extension of out-patient services to patients of modest means has far-reaching and beneficial effects. It may replace admission to hospital, or may serve to secure necessary and beneficial hospitalization. As a general rule out-patient departments are subsidized from the funds of the general hospital and separate records are not kept. Until a uniform system of accounting is adopted, it will not be possible to give the average cost per patient.

#### 6.—Out-Patient Departments of Public Hospitals, by Provinces, 1947

NOTE.—Figures of tuberculosis sanatoria and government and municipal clinics held in hospitals are not included.

Province	Out-Patient Departments	Patients	Treatments
New Brunswick.....	2	22,324	33,923
Quebec.....	29	508,466	1,027,341
Ontario.....	15	241,991	394,304
Manitoba.....	4	81,772	119,257
Alberta.....	1	991	3,661
British Columbia.....	2	14,597	37,206
<b>Totals.....</b>	<b>53</b>	<b>870,141</b>	<b>1,615,692</b>

**Tuberculosis Institutions.**—The statistics regarding institutions for the treatment of tuberculosis shown in Table 7, include special units for the treatment of tuberculosis in general hospitals and Federal hospitals as well as the specialized sanatoria shown separately in Table 1. Deaths in these institutions from tuberculosis in 1947 were 44.2 p.c. of the total deaths from the disease in Canada as shown in the Chapter on Vital Statistics at p. 215 of this edition. However, the death rate from this disease has shown an encouraging decline since 1926.

#### 7.—Summary Statistics of Tuberculosis Hospitals, by Provinces, 1947

Item	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Totals
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
<b>Hospitals—</b>										
Sanatoria.....	1	4	5	13	13	4	3	1	1	45
Units in public hospitals.....	—	7	—	13	—	1	—	3	8	32
Units in Federal hospitals.....	—	1	1	4	3	5	—	1	3	18
<b>Totals, Hospitals..</b>	<b>1</b>	<b>12</b>	<b>6</b>	<b>30</b>	<b>16</b>	<b>10</b>	<b>3</b>	<b>5</b>	<b>12</b>	<b>95</b>
<b>Bed Capacity—</b>										
Sanatoria.....	145	676	847	2,580	3,739	825	803	288	780	10,683
Units in public hospitals.....	—	215	—	943	—	165	—	179	71	1,573
Units in Federal hospitals.....	—	250	111	521	284	163	—	320	450	2,099
<b>Totals, Bed Capacity.....</b>	<b>145</b>	<b>1,141</b>	<b>958</b>	<b>4,044</b>	<b>4,023</b>	<b>1,153</b>	<b>803</b>	<b>787</b>	<b>1,301</b>	<b>14,355</b>
<b>Personnel—<sup>2</sup></b>										
Salariated doctors...	3	18	17	105	70	10	15	5	34	277
Graduate nurses....	14	45	60	171	354	56	69	22	123	914
<b>Totals, Personnel<sup>3</sup></b>	<b>70</b>	<b>319</b>	<b>417</b>	<b>1,248</b>	<b>2,045</b>	<b>347</b>	<b>508</b>	<b>127</b>	<b>690</b>	<b>5,771</b>
<b>Hospital Facilities—<sup>2</sup></b>										
X-ray.....	1	2	3	11	12	3	3	1	1	37
Clinical laboratories	1	2	5	13	13	3	3	1	1	42
Physio-therapy.....	—	1	5	9	6	2	1	—	1	25

For footnotes, see end of table, p. 258.

## 7.—Summary Statistics of Tuberculosis Hospitals, by Provinces, 1947—concluded

Item	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Totals
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
<b>Movement of Patients—</b>										
Admissions.....	116	893	1,246	5,152	3,372	1,305	840	657	1,224	14,805
Discharges.....	122	891	1,093	5,013	3,400	1,405	853	607	1,033	14,417
Deaths.....	35	139	125	840	666	165	108	94	240	2,412
Under treatment...	251	1,748	1,909	8,540	6,959	2,412	1,616	1,252	2,137	26,824
Total collective days' stay.....	46,183	314,342	282,171	1,266,434	1,311,891	355,969	292,848	220,017	342,332	4,432,187

<sup>1</sup> Four units in public hospitals at Vancouver and Victoria are operated by the Provincial Board of Health and are included with Sanatoria. <sup>2</sup> Sanatoria only (exclusive of Federal Sanatoria).

<sup>3</sup> Includes other personnel.

## Subsection 2.—Statistics of Federal Government Hospitals\*

Hospitals operated by the Federal Government are conducted for special purposes connected with departmental administration such as care of war veterans and members of the Permanent Force, the quarantine and care of immigrants and lepers, the care of Indians, etc. Table 1 shows the number of Federal hospitals compared with those in other categories for 1947.

**Department of Veterans Affairs Hospitals.**—In the year 1948 a larger number of beds in new modern fire-proof construction was added to the Department's facilities than in any other year of its history. These were made up of the new Camp Hill Hospital, Halifax, N.S., with 250 beds and Sunnybrook Hospital, near Toronto, Ont., on the completion of the hospital proper, with 875 beds.

Three older institutions were closed, Cornwallis Hospital, N.S., the Veterans' Hospital, Kingston, Ont., and the Veterans' Home, Calgary, Alta. The first two institutions were devoted exclusively to the treatment of tuberculosis. The patients in Cornwallis Hospital were transferred to specially prepared accommodation at Camp Hill Hospital, while Kingston Hospital was turned over as a completely functioning institution to the Eastern Counties Tuberculosis Association. The patients from Calgary Veterans' Home were transferred to the Convalescent Hospital in that city.

Among the new major projects, mention might be made of the additions to Lancaster Hospital, Saint John, N.B. The planning of the first part of an extension estimated at over \$2,000,000 was completed and a contract of approximately one-half this amount was let for construction.

Considerable progress was made on the new 300-bed hospital in the city of Quebec and the 100-bed extension to Queen Mary Hospital, Montreal, Que. Study was also made of the further adjustment still required in a number of active treatment hospitals.

While the demand for the use of the special facilities for convalescents in the Health and Occupational Centres had fallen off, good use was made of most of the accommodation so provided for the more ambulant type of older veterans. The problem of the provision of suitable accommodation for the older bedfast patients suffering from chronic disease is being faced.

Accommodation and movement of patients is shown by type of hospital for 1948 in Table 8.

\* Revised by the Department of Veterans Affairs.



### 8.—Accommodation and Movement of Patients in Veterans Affairs Hospitals, 1948

NOTE.—Patients in veterans pavilions attached to civilian hospitals are not included.

Type of Hospital and Location	Bed Capacity	Personnel		Movement of Patients			
		Salaried Doctors	Total	In Residence Beginning of Year	Ad-missions During Year	In Residence End of Year	Total Patient Days During Year
	No.	No.	No.	No.	No.	No.	No.
<b>Active Treatment Hospitals—</b>							
Halifax, N.S.	550	13	412	183	3,950	300	101,254
Saint John, N.B.	400	11	359	244	3,336	243	98,486
Quebec, Que.	300	5	250	155	2,008	182	76,215
Montreal, Que.	800	11	965	485	4,650	541	206,081
Ste. Anne's, Que.	750	10	778	659	1,148	722	266,084
Toronto, Ont.—							
Sunnybrook.	875	28	1,037	352	5,368	728	210,652
Christie St.	600	—	601	696	3,785	373	196,644
London, Ont.	1,200	17	856	1,001	3,081	1,033	384,116
Winnipeg, Man.	800	11	608	519	4,822	465	197,806
Saskatoon, Sask.	135	2	108	58	957	72	32,536
Calgary, Alta.	250	9	262	201	2,792	187	75,785
Vancouver, B.C.	1,000	13	964	820	5,619	715	311,488
Victoria, B.C.	200	3	332	169	1,722	171	67,440
<b>Totals, Active Treatment Hospitals</b>	<b>7,860</b>	<b>133</b>	<b>7,532</b>	<b>5,542</b>	<b>43,238</b>	<b>5,732</b>	<b>2,224,587</b>
<b>Health and Occupational Centres—</b>							
Saint John, N.B.	75	1	46	25	287	40	15,830
Senneville, Que.	100	2	53	45	203	129	31,691
Ottawa, Ont.	175	4	112	151	491	112	41,899
Toronto, Ont.—							
York.	100	1	38	30	261	18	11,507
Divadale.	100	1	71	58	326	77	24,839
Calgary, Alta.	110	—	53	58	448	99	29,395
Burnaby, B.C.	200	1	88	123	799	180	53,498
<b>Totals, Health and Occupational Centres</b>	<b>860</b>	<b>10</b>	<b>461</b>	<b>490</b>	<b>2,815</b>	<b>655</b>	<b>208,659</b>
<b>Special Institutions—</b>							
Cornwallis, N.S. <sup>1</sup>	175	2	2	128	871	3	43,916
St. Hyacinthe, Que. <sup>1</sup>	200	5	209	174	259	178	55,909
Toronto, Ont. <sup>4</sup>	37	—	59	28	111	29	10,579
London, Ont. <sup>1</sup>	150	3	99	71	269	135	46,357
Kingston, Ont. <sup>1</sup>	150	2	2	146	26	5	22,482
<b>Totals, Special Institutions</b>	<b>712</b>	<b>8</b>	<b>367</b>	<b>547</b>	<b>1,536</b>	<b>342</b>	<b>179,243</b>
<b>Veterans' Homes—</b>							
Halifax, N.S.	20	—	10	14	20	16	5,472
Saint John, N.B.	30	—	10	30	19	17	8,084
Toronto, Ont.	165	2	120	184	126	155	59,056
Amherstburg, Ont.	25	—	12	15	23	23	7,481
Winnipeg, Man.	180	—	88	126	201	132	46,073
Regina, Sask.	60	—	24	36	128	45	14,446
Edmonton, Alta.	70	—	24	61	179	62	21,494
Calgary, Alta.	26	—	19	25	—	6	500
Vancouver, B.C.	118	—	46	113	88	112	40,521
<b>Totals, Veterans' Homes</b>	<b>694</b>	<b>2</b>	<b>353</b>	<b>604</b>	<b>784</b>	<b>562</b>	<b>203,127</b>
<b>Grand Totals</b>	<b>10,126</b>	<b>153<sup>7</sup></b>	<b>8,713</b>	<b>7,183</b>	<b>48,373</b>	<b>7,291</b>	<b>2,815,616</b>

<sup>1</sup> Tuberculosis.<sup>2</sup> Closed.<sup>3</sup> Closed in November.<sup>4</sup> Paraplegic.<sup>5</sup> Closed

in July.

<sup>6</sup> Closed in January.<sup>7</sup> 570 doctors employed part time, 214 interns and residents

not included.

*Veteran Patients Classified by Status.*—As at Dec. 31, 1947 and 1948, the numbers of patients in Veterans' Hospitals were 7,180 and 7,291, respectively, classified according to status and treatment groups as follows:

Patient Strength	1947	1948	Treatment Groups	1947	1948
First World War.....	3,094	3,952	General.....	5,338	5,353
Second World War.....	3,735	2,925	Tuberculosis.....	869	805
Other.....	351	414	Mental.....	973	1,133

Clinical treatments in 1948 numbered 506,249 and in 1947, 760,333.

**National Defence Hospitals.\***—Table 9 shows accommodation and movement of patients in National Defence hospitals for the year 1948. All these hospitals are equipped with X-ray, laboratory and out-patient facilities and, except in the case of nine Army hospitals, physio-therapy services.

In addition, there are completely equipped 10-bed sick quarters (Royal Canadian Air Force) available for emergency use at Aylmer, Centralia and Clinton in Ontario, and at Edmonton and Calgary in Alberta. Hospitalization in these areas is carried out in existing Veterans Affairs hospitals or civilian hospitals. There were 239 admissions to the emergency centres, and 239 discharges during 1948, and approximately 35,000 out-patient treatments were given to Navy, Army and Air Force personnel, civilians, Eskimos and Indians in the Royal Canadian Air Force emergency sick quarters and medical inspection rooms. These are in addition to out-patient treatments given at the hospitals.

There are sick bays with 2 to 12 beds in each ship of the Royal Canadian Navy in commission. Suitable sick quarters are likewise provided in all Naval and Army establishments where hospitals do not exist.

\* Revised in the Department of National Defence.

#### 9.—Accommodation and Movement of Patients in National Defence Hospitals, 1948

Service and Location of Hospital	Bed Capacity	Personnel		Movement of Patients			
		Salaried Doctors	Total	In Residence Beginning of Year	Ad- missions During Year	In Residence End of Year	Total Patient Days During Year
<b>Navy—</b>	No.	No.	No.	No.	No.	No.	No.
Halifax, N.S.....	200	7	88	52	1,615	50	31,961
Esquimalt, B.C.....	100	5	64	26	1,535	18	15,975
<b>Army—</b>							
Montreal, Que. <sup>1</sup> .....	50	5	42	32	526	52	13,259
Quebec, Que.....	25	3	35	14	337	8	4,943
London, Ont.....	15	1	14	—	181	1	1,190
Toronto, Ont.....	100	9	102	49	1,050	44	21,685
Camp Borden, Ont.....	35	3	26	5	843	7	5,163
Kingston, Ont.....	50	5	57	9	742	20	10,938
Petawawa, Ont. <sup>2</sup> .....	25	1	17	—	129	2	660
Winnipeg, Man. <sup>1</sup> .....	25	2	19	21	573	16	13,085
Rivers, Man.....	20	2	15	4	255	2	1,560
Shilo, Man.....	35	3	32	2	589	7	3,509
Fort Churchill, Man.....	20	2	19	7	322	9	3,374
Calgary, Alta. <sup>1</sup> .....	50	3	39	18	633	19	9,032
Vancouver, B.C. <sup>1</sup> .....	25	2	22	19	424	20	9,849
Chilliwack, B.C.....	15	1	8	—	259	1	787
Whitehorse, Yukon.....	35	3	36	9	736	14	6,828
<b>Air Force—</b>							
Goose Bay, Labrador.....	15	2	24	2	325	9	2,748
Rockcliffe, Ont.....	100	4	80	30	1,142	51	14,274
Trenton, Ont.....	50	2	33	8	564	14	4,840
Fort Nelson, B.C.....	15	1	13	—	150	—	1,179
<b>Totals.....</b>	<b>1,005</b>	<b>66</b>	<b>785</b>	<b>307</b>	<b>13,130</b>	<b>363</b>	<b>176,839</b>

<sup>1</sup> Integrated with Department of Veterans Affairs Hospital at same location.

<sup>2</sup> Opened June, 1948.

**National Health and Welfare Hospitals.**—Table 10 gives statistics of the hospitals administered by the Department of National Health and Welfare. The immigration detention hospital at Quebec, the largest of such institutions, has X-ray, laboratory and physio-therapy facilities as well as a social service and an out-patient department. The other hospitals are small and, with the exception of a clinical laboratory at Lunenburg and an out-patient department at Sydney, have no special services.

The low number of patient days at immigration hospitals, in contrast with the number of beds, is explained by the fact that these hospitals must maintain a sufficient number of beds to accommodate any sudden influx of patients whose treatment demands immediate quarantine.

**10.—Accommodation and Movement of Patients in National Health and Welfare Hospitals, 1948**

Type of Hospital and Location	Bed Capacity <sup>1</sup>	Personnel		Movement of Patients <sup>2</sup>			
		Salaried Doctors	Total	In Residence Beginning of Year	Admissions During Year	In Residence End of Year	Total Patient Days During Year
	No.	No.	No.	No.	No.	No.	No.
<b>Quarantine and Immigration—</b>							
Halifax, N.S.—							
Immigration.....}	160	4	25	2	154	10	1,790
Rockhead Quarantine...}							
Saint John, N.B.....}	9	—	—	—	—	—	—
Quebec, Que.....}	213	6 <sup>3</sup>	142	78	609	98	32,829
Victoria, B.C.....}	18	2 <sup>3</sup>	16	—	—	—	—
<b>Sick Mariners—</b>							
Lunenburg, N.S.....}	12	1 <sup>3</sup>	2	1	66	2	1,098
Sydney, N.S.....}	35	2 <sup>3</sup>	22	4	193	5	3,058
<b>Leper—</b>							
Victoria, B.C.....}	19	2 <sup>3</sup>	5	1	—	1	365
<b>Indian Health Service—</b>							
Maliseet, N.B.....}	6	1 <sup>3</sup>	5	2	113	3	713
Ohsweken, Ont.....}	32	2	15	19	464	21	7,259
Manitowaning, Ont.....}	13	1	8	6	143	8	2,751
Fort William, Ont. <sup>4</sup> .....}	21	—	7	20	18	20	5,211
Selkirk, Man. <sup>4</sup> .....}	50	1	25	49	60	41	17,071
The Pas, Man. <sup>4</sup> .....}	164	1	70	82	119	94	32,279
Norway House, Man.....}	..	..	..	..	..	..	..
Pine Falls, Man.....}	17	1	11	8	519	4	..
Hodgson, Man.....}	40	1 <sup>3</sup>	15	5	246	—	1,665
Brandon, Man. <sup>4</sup> .....}	260	8 <sup>5</sup>	145	183	250	251	81,060
Fort Qu'Appelle, Sask. <sup>6</sup> .....}	59	2	..	67	689	69	24,744
Edmonton, Alta.....}	..	..	..	..	..	..	..
Gleichen, Alta.....}	44	1	13	23	551	13	7,025
Brocket, Alta.....}	10	1 <sup>3</sup>	4	1	180	1	1,024
Cardston, Alta.....}	44	1 <sup>3</sup>	14	35	1,208	31	7,420
Morley, Alta.....}	10	1	4	3	153	3	1,211
Sardis, B.C.....}	183	3 <sup>3</sup>	131	157	320	38	53,664
Nanaimo, B.C.....}	220	5	135	80	326	194	40,148
Miller Bay, B.C.....}	157	2	105	142	241	152	53,674
<b>Totals.....</b>	<b>1,801</b>	<b>49</b>	<b>919</b>	<b>968</b>	<b>6,622</b>	<b>1,059</b>	<b>376,059</b>

<sup>1</sup> Exclusive of bassinets.

<sup>2</sup> Excluding newborn.

<sup>3</sup> Includes one part-time doctor in each hospital.

<sup>4</sup> Tuberculosis patients only.

<sup>5</sup> Includes four part-time doctors.

<sup>6</sup> Not in operation in 1948.

**Subsection 3.—Statistics of Mental Hospitals**

At Dec. 31, 1947, there were 50,203 patients in mental institutions in Canada and 4,500 on parole or otherwise absent, making a total of 54,703. The normal bed capacity in these institutions was only 45,180, showing a seriously overcrowded

situation if the patient population on Jan. 1, 1947, and the admissions and separations during the year are considered. This overcrowded condition was specially marked in New Brunswick, Quebec and the western provinces. Of the 50,203 resident patients in 1947, 37,801 were psychotic, 11,188 were mentally deficient 770 were epileptic and 444 mental cases were otherwise classified.

At Dec. 31, 1947, the number of resident patients in mental institutions per 100,000 population was 399.8 as compared with 399.5 at the same date in 1946, 396.5 in 1945, 388.0 in 1940, 352.8 in 1935 and 305.4 at June 1, 1931.

Data are not available to indicate to what extent the increasing trend of patients per 100,000 population is due to more complete diagnosis and care than formerly, or to what extent there is an actual increase in the proportion of the population requiring treatment for mental diseases.

#### 11.—Summary Statistics of Mental Institutions, by Provinces, 1947

Item	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
	No.	No.	No.	No.	No.
Institutions reporting.....	1	16	1	8	17
Normal bed capacities.....	250	2,603	900	13,845	15,864
<b>Personnel—</b>					
Medical staff, full-time (interns included).....	1	8	6	70	119
Medical staff, part-time (interns included).....	1	16	1	17	29
Registered nurses.....	1	27	13	160	392
Other nurses.....	22	36	12	187	242
<b>Totals, Personnel.....</b>	<b>75</b>	<b>433</b>	<b>267</b>	<b>2,601</b>	<b>4,181</b>
<b>Movement of Patients—</b>					
Admissions (transfers not included).....	117	695	375	3,044	4,960
Under treatment.....	406	2,981	1,665	17,632	21,023
Separations (transfers not included).....	105	680	306	2,818	4,464
Total patients, Dec. 31, 1947.....	301	2,418	1,766	16,432	18,298
	\$	\$	\$	\$	\$
<b>Receipts—</b>					
Government and municipal payments..	211,692	886,834	719,921	4,524,723	6,962,614
Fees from paying patients.....	27,901	91,223	58,266	777,515	1,648,577
Received from other sources.....	—	79,161	3,894	860,441	423,688
<b>Totals, Receipts.....</b>	<b>239,593</b>	<b>1,057,218</b>	<b>782,081</b>	<b>6,162,679</b>	<b>9,034,879</b>
<b>Expenditures—</b>					
Salaries (net).....	83,481	374,056	348,120	2,329,837	5,632,151
Provisions.....	76,316	295,032	180,811	1,563,083	1,341,083
All other expenditures for maintenance..	79,796	356,447	253,150	1,894,112	1,956,745
<b>Totals, Expenditures for Maintenance..</b>	<b>239,593</b>	<b>1,025,535</b>	<b>782,081</b>	<b>5,787,032</b>	<b>8,929,979</b>
New buildings and improvements.....	—	51,800	71,868	250,459	34,332
Expenditures for other purposes.....	—	13,850	—	485,662	21,928
<b>Totals, Expenditures.....</b>	<b>239,593</b>	<b>1,091,185</b>	<b>853,949</b>	<b>6,523,153</b>	<b>8,986,239</b>



## 11.—Summary Statistics of Mental Institutions, by Provinces, 1947—concluded

Item	Manitoba	Saskatchewan	Alberta	British Columbia	Total
	No.	No.	No.	No.	No.
Institutions reporting.....	4	3	5	4	59
Normal bed capacities.....	2,471	3,670	2,538	3,039	45,180
<b>Personnel—</b>					
Medical staff, full-time (interns included).....	17	20	12	26	279
Medical staff, part-time (interns included).....	5	1	8	1	79
Registered nurses.....	19	9	26	24	671
Other nurses.....	132	630	67	242	1,570
<b>Totals, Personnel.....</b>	<b>210</b>	<b>1,192</b>	<b>723</b>	<b>1,299</b>	<b>11,481</b>
<b>Movement of Patients—</b>					
Admissions (transfers not included)....	760	893	741	1,495	13,080
Under treatment.....	3,886	5,187	3,841	5,651	62,272
Separations (transfers not included)....	742	711	661	1,347	11,834
Total patients, Dec. 31, 1947.....	3,304	4,484	3,222	4,478	54,703
	\$	\$	\$	\$	\$
<b>Receipts—</b>					
Government and municipal payments..	1,236,776	3,595,636	1,807,994	2,645,026	22,591,216
Fees from paying patients.....	171,011	40,032	270,837	295,331	3,380,693
Received from other sources.....	39,149	189,472	44,729	1,942	1,642,476
<b>Totals, Receipts.....</b>	<b>1,446,936</b>	<b>3,825,140</b>	<b>2,123,560</b>	<b>2,942,299</b>	<b>27,614,385</b>
<b>Expenditures—</b>					
Salaries (net).....	679,416	1,977,955	1,027,051	1,460,677	13,912,744
Provisions.....	367,758	570,060	385,909	512,163	5,292,215
All other expenditures for maintenance.	364,678	694,893	343,773	953,361	6,896,955
<b>Totals, Expenditures for Maintenance..</b>	<b>1,411,852</b>	<b>3,242,908</b>	<b>1,756,733</b>	<b>2,926,201</b>	<b>26,101,914</b>
New buildings and improvements.....	11,817	354,466	306,063	—	1,080,805
Other purposes.....	—	37,873	5,907	8,858	574,078
<b>Totals, Expenditures.....</b>	<b>1,423,669</b>	<b>3,635,247</b>	<b>2,068,703</b>	<b>2,935,059</b>	<b>27,756,797</b>

## PART II.—PUBLIC WELFARE AND INCOME SECURITY\*

The major responsibility for public welfare in Canada rests traditionally with the Provincial Governments, and it is only in recent years, as a result of the new concept of social security, that income-maintenance programs other than those for special groups have been introduced at the federal level, e.g., Unemployment Insurance following amendment of the British North America Act, and Family Allowances. In 1944, the Department of National Health and Welfare was established to promote social welfare in matters over which the Federal Parliament has jurisdiction, except for services administered by other Federal Departments, such as the welfare of Indians and Eskimos and welfare services to veterans. Its duties include the administration of the Family Allowances Act, the federal aspects of the Old Age Pensions Act, and of the National Physical Fitness Act.

\* Revised under the direction of G. F. Davidson, Ph. D., Deputy Minister of Welfare.

## Section 1.—Federal Government Programs

### Subsection 1.—Family Allowances

The Family Allowances Act, 1944, was introduced as a basic social security measure designed to assist in providing equal opportunity for all Canadian children. The allowances are paid entirely out of the Federal Consolidated Revenue Fund, are not part of the taxable income and involve no means test.

Under the Act and amendments, allowances are payable in respect of every child below the age of 16 years who was born in Canada or has been a resident of the country for one year, or whose father or mother was domiciled in Canada for three years immediately prior to the birth of the child. Payment is made monthly, and normally to the mother although any person who substantially maintains the child may be paid the allowance on its behalf. The allowances are paid at the monthly rate of \$5 for each child under 6 years; \$6 for each child from 6 to 9 years; \$7 for each child from 10 to 12 years; and \$8 for each child from 13 to 15 years. The amendment of April, 1949, reduced the residence requirement from three years to one and removed the provision whereby allowances for the fifth and each subsequent child were reduced.

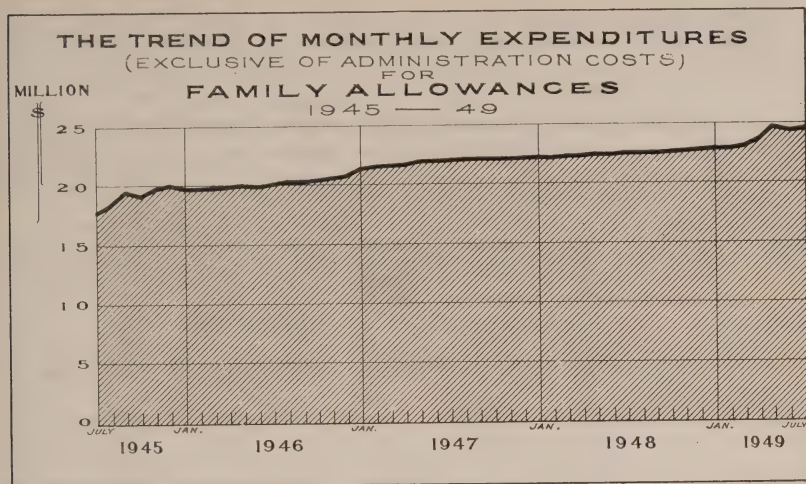
The allowances are paid by cheque, except for Eskimo children and a small group of Indian children for whom payment is made largely in kind because of lack of exchange facilities in remote areas and the need for education in the use of nutritive foods.

If it is satisfactorily shown to the authorities that the allowances are not being spent for the purpose outlined in the Act payment may be discontinued or made to some other person or agency on behalf of the child. Allowances are not payable for any child who fails to comply with provincial school regulations or on behalf of a girl who, although she is under 16 years of age, is married. The Act provides that if any person is dissatisfied with a decision as to his right to be paid the allowance, or as to the amount of allowance paid, he may appeal the decision to a specially constituted tribunal.

Family Allowances are administered by the National Director of Family Allowances of the Department of National Health and Welfare through Regional Directors in offices located in each provincial capital. A welfare section in each Regional Office deals with welfare questions arising out of the administration of allowances. A Supervisor of Welfare Services serves as adviser to each Regional Director and reports through him to the Chief Supervisor of Welfare Services, who acts in a similar advisory capacity to the National Director. The actual preparation and issuing of the cheques is the responsibility of the treasury division of each Regional Office which reports to the Chief Treasury Officer of the Department of Health and Welfare.

The Regional Director for Yukon and the Northwest Territories, located at Ottawa, is responsible for payments to families in these areas. Close co-operation is maintained with the Department of Mines and Resources which is responsible for the welfare of Indians and Eskimos.

Payment of Family Allowances on behalf of children in Newfoundland began Apr. 1, 1949, on Newfoundland's entrance into Canadian Confederation.



**1.—Families Receiving Family Allowances, Children for Whom Allowances Were Paid and Total Allowances, Years Ended Mar. 31, 1946-49**

Province	Year <sup>1</sup>	Families Receiving Allowance	Children for Whom Allowance Paid	Average Number of Children per Family	Average Allowance		Total Allowances Paid During Fiscal Year <sup>2</sup>
					per Family	per Child	
		No.	No.	No.	\$	\$	\$
Prince Edward Island....	1946	11,999	30,541	2.54	15.09	5.93	1,618,784
	1947	12,280	31,203	2.54	15.09	5.94	2,192,044
	1948	12,748	31,861	2.50	14.90	5.96	2,256,477
	1949	12,920	32,621	2.52	14.89	5.90	2,295,286
Nova Scotia.....	1946	76,789	183,447	2.39	11.17	5.93	9,519,446
	1947	84,172	196,530	2.33	13.92	5.96	13,353,417
	1948	87,170	202,029	2.32	13.78	5.95	14,207,958
	1949	88,927	207,282	2.33	13.76	5.90	14,515,131
New Brunswick.....	1946	58,933	156,961	2.66	15.66	5.88	8,112,009
	1947	65,071	168,114	2.53	15.22	5.89	11,394,426
	1948	68,510	175,390	2.56	14.91	5.82	12,086,892
	1949	70,610	181,921	2.58	14.96	5.81	12,462,093
Quebec.....	1946	396,904	1,118,540	2.82	16.71	5.93	57,962,067
	1947	445,669	1,230,312	2.76	16.14	5.85	82,389,967
	1948	468,680	1,260,735	2.69	15.66	5.82	87,157,243
	1949	488,263	1,302,242	2.67	15.47	5.80	89,304,108
Ontario.....	1946	456,219	937,982	2.05	12.43	6.05	49,208,124
	1947	526,400	1,051,206	2.00	12.62	6.03	70,325,915
	1948	555,658	1,096,779	1.97	11.79	5.97	77,328,535
	1949	575,961	1,140,778	1.98	11.81	5.96	80,151,250
Manitoba.....	1946	87,252	184,692	2.12	12.84	6.06	9,896,231
	1947	97,698	203,681	2.08	12.62	6.05	14,007,061
	1948	99,954	207,544	2.08	12.42	5.98	14,798,437
	1949	101,917	211,752	2.08	12.36	5.95	15,016,273
Saskatchewan.....	1946	106,067	248,319	2.34	14.04	6.00	13,194,768
	1947	112,625	255,424	2.27	13.75	6.06	18,119,792
	1948	114,613	257,611	2.25	13.45	5.98	18,561,330
	1949	115,170	258,370	2.24	13.37	5.96	18,527,408

For footnotes, see end of table, p. 266.



**1.—Families Receiving Family Allowances, Children for Whom Allowances Were Paid and Total Allowances, Years Ended Mar. 31, 1946-49—concluded**

Province	Year <sup>1</sup>	Families Receiving Allowance	Children for Whom Allowance Paid	Average Number of Children per Family	Average Allowance		Total Allowances Paid During Fiscal Year <sup>2</sup>
					per Family	per Child	
		No.	No.	No.	\$	\$	\$
Alberta.....	1946	103,804	230,767	2.22	13.40	6.03	12,262,073
	1947	115,198	248,512	2.16	12.98	6.02	17,159,488
	1948	119,739	255,848	2.14	12.78	5.98	18,181,663
	1949	124,173	266,133	2.14	12.75	5.95	18,695,325
British Columbia.....	1946	106,840	204,754	1.92	11.52	6.01	10,693,139
	1947	126,622	242,010	1.91	11.31	5.91	15,722,045
	1948	139,627	260,752	1.87	11.20	6.00	18,012,189
	1949	147,630	279,769	1.89	11.24	5.93	19,347,837
Yukon and N.W.T.....	1946	1,344	3,097	2.30	16.88	7.32	165,507
	1947	2,721	6,070	2.23	13.12	5.88	471,377
	1948	3,245	7,023	2.16	12.75	5.89	574,470
	1949	3,579	7,785	2.17	12.71	5.84	595,063
Canada.....	1946	1,406,151	3,299,100	2.35	14.05	5.99	172,632,147
	1947	1,588,456	3,633,062	2.29	13.62	5.95	245,140,532
	1948	1,669,944	3,755,572	2.25	13.31	5.92	253,165,192
	1949	1,729,150	3,888,653	2.25	13.25	5.89	270,909,779
Newfoundland.....	1949	49,445 <sup>3</sup>	134,338 <sup>3</sup>	2.72 <sup>3</sup>	16.51 <sup>3</sup>	6.07 <sup>3</sup>	3,141,356 <sup>4</sup>

<sup>1</sup> All figures except those in the last column refer to the month of March of the year indicated.

<sup>2</sup> Totals shown for year ended Mar. 31, 1946, cover 9 months because payment of Family Allowances did not begin until July 1, 1945. The totals shown for the years 1946, 1947 and 1948 are adjusted to account for overpayments and other corrections and therefore differ slightly from those in previous editions of the Canada Year Book.

<sup>3</sup> Data for July, 1949.

<sup>4</sup> Total for months of April to July, inclusive, 1949.

### Subsection 2.—Unemployment Insurance

In 1940, by an amendment to the British North America Act, the Federal Government was given jurisdiction in the field of unemployment insurance and the Unemployment Insurance Act was passed, establishing a national system of unemployment insurance which is outlined in Chapter XIX.

### Subsection 3.—National Employment Service

The National Employment Service is operated in conjunction with the Unemployment Insurance scheme. It is administered by the Commission through the employment and claims offices and supervised by the Federal Department of Labour. A description of the program is found in Chapter XIX.

### Subsection 4.—Veterans' Programs

*Veterans' Unemployment Assistance.*—The Department of Veterans Affairs does not place veterans in employment, but works closely with the Department of Labour in connection with veterans' problems. Out-of-work benefits are authorized in certain cases as outlined in Chapter XXVIII.

*Veterans' Pensions.*—Canadian pension legislation arising out of the First and Second World Wars has been discussed in previous issues of the Year Book (see pp. 759-760 of the 1943-44 Year Book; pp. 1139-1143 of the 1947 Year Book and pp. 1146-1148 of the 1948-49 Year Book). In this issue of the Year Book the account is outlined in Chapter XXVIII.



*Veterans' Allowances.*—In addition to war pensions, allowances are paid to certain non-pensionable veterans at 60 years of age, or earlier if the veteran is permanently unemployable, or to eligible veterans who, having served in a theatre of actual war, are incapable and unlikely to become capable of maintaining themselves because of economic handicaps combined with disabilities. These allowances are outlined in Chapter XXVIII.

*Veterans' Welfare Services.*—Welfare and rehabilitation services for veterans, as administered by the Department of Veterans Affairs, are outlined in Chapter XXVIII.

#### **Subsection 5.—Prairie Farm Assistance\***

The Prairie Farm Assistance Act, passed in 1939, and administered by the Federal Department of Agriculture, provides for direct money payments by the Federal Government, on an acreage basis, to farmers in areas of low crop yields in the Prairie Provinces and the Peace River District of British Columbia. The Act was designed to replace assistance in the form of relief and provides that payments be made to farmers under certain conditions and terms; it requires that 1 p.c. of the purchase price of all grains (wheat, oats, barley and rye) marketed in the Prairie Provinces be paid to the Federal Government and set aside in a special fund for the purposes of the Act.

If the farmer, who may be an owner or tenant, or a member of a co-operative farm association engaged in farming, is located in a crop-failure area, he may be awarded assistance on not more than one-half of the cultivated land or a maximum of 200 acres. The rates of payment range up to \$2.50 per acre.

From the inception of the scheme to Mar. 31, 1949, the total amount paid out under the Act was \$104,606,488.74. The amount collected under the 1 p.c. levy was \$38,634,389.32.

#### **Subsection 6.—Government Annuities†**

Under the Government Annuities Act (c. 7, R.S.C., 1927, amended by c. 33, 1931) passed in 1908, the Federal Government carries on a service to assist Canadians to make provision for old age. The Act is administered by the Minister of Labour.

A Canadian Government Annuity is a fixed yearly income purchased from and paid by the Government of Canada. The annuity is payable in monthly instalments for life, or for life and guaranteed for a period of years. The minimum annuity is \$10 and the maximum \$1,200 a year. Annuity contracts may be deferred or immediate. Under deferred annuity contracts purchase is by periodic or single premiums. Immediate annuity contracts provide immediate income.

The property and interest of the annuitant is neither transferable nor attachable. In the event of the death of the annuitant before a deferred annuity vests, all money paid is refunded to the purchaser or his legal representatives with interest. Provision is made in the Act for group annuity contracts, whereby employers may contract

\* Contributed by the Department of Agriculture, Ottawa.

† Revised by the Government Annuities Branch, Department of Labour, Ottawa.

for the purchase of annuities on behalf of their employees, or associations on behalf of their members, the purchase money being derived partly from wages and partly from employer contributions. Group annuity plans now in effect cover a variety of industries and many municipal corporations throughout Canada. Many of the older members under group plans are now enjoying benefits under the Annuities Act.

From Sept. 1, 1908, the date of the inception of the system, up to Mar. 31, 1949, the total number of annuity contracts and certificates issued was 271,900. Of these, 29,608 have been cancelled (including 4,975 cancelled in 1948-49) leaving in effect on Mar. 31, 1949, 242,292 contracts and certificates. The total amount of purchase money received up to Mar. 31, 1949, was \$530,169,463.

Up to Mar. 31, 1949, 809 corporations, institutions and associations, as compared with 708 up to Mar. 31, 1948, had entered into agreements with the Government to purchase annuities. Under these agreements, as of Mar. 31, 1949, 113,645 employees or members were holding certificates for purchase of deferred annuities (as compared with 92,063 one year earlier). The number of certificates issued under groups in the year 1948-49 was 29,869 (as compared with 26,708 in the year 1947-48).

In April, 1948, the premium rates for new contracts were revised to provide for greater longevity of annuitants and were put on a 3 p.c. interest basis. It was decided to value annuities already being paid on the new mortality basis. Approximately \$10,000,000 additional reserve was required for this purpose on Mar. 31, 1949. This fact must be kept in mind when comparisons are made from Table 3.

Up to June, 1940, annuity payments were, with certain exceptions, exempt from taxation under the Income War Tax Act. Under contracts issued after that date, income was fully taxable until the Act was amended in 1945. Under that amendment, the capital element in contractual annuities issued since June, 1940, was declared exempt from taxation, the portion representing interest being subject to tax as income. The change applies to income of 1945 and subsequent years.

## 2.—Government Annuities Contracted, and Purchase Money Received, Years Ended Mar. 31, 1926-49

NOTE.—Figures for the years 1909 to 1925 will be found at p. 873 of the 1942 Year Book.

Year	Contracts and Certificates	Purchase Money Received	Year	Contracts and Certificates	Purchase Money Received
	No.	\$		No.	\$
1926.....	668	1,938,921	1938.....	5,724	13,550,483
1927.....	503	1,894,885	1939.....	8,518	18,189,319
1928.....	1,223	3,843,088	1940.....	9,014	20,001,533
1929.....	1,328	4,272,419	1941.....	11,994	18,803,645
1930.....	1,257	3,156,475	1942.....	8,593	19,630,645
1931.....	1,772	3,612,234	1943.....	9,608	20,415,365
1932.....	1,726	4,194,384	1944.....	19,354	26,600,098
1933.....	1,375	3,547,345	1945.....	15,796	33,076,436
1934.....	2,412	7,071,439	1946.....	25,538	46,954,536
1935.....	3,930	13,376,400	1947.....	43,585	72,009,764
1936.....	6,357	21,281,981	1948.....	40,945	75,067,827
1937.....	7,806	23,614,824	1949.....	36,332	64,311,116

## 3.—Government Annuities Fund Statements, Years Ended Mar. 31, 1944-49

Item	1944	1945	1946	1947	1948	1949
	\$	\$	\$	\$	\$	\$
<b>Assets</b>						
Fund at beginning of fiscal year.....	190,298,479	213,561,537	243,537,624	287,492,656	357,161,953	429,518,235
Receipts during the year, less payments.....	23,263,058	29,976,087	43,955,032	69,669,297	72,356,282	72,219,424
Fund at end of fiscal year...	213,561,537	243,537,624	287,492,656	357,161,953	429,518,235	501,737,659
<b>Liabilities</b>						
Value of outstanding contracts.....	213,561,537	243,537,624	287,492,656	357,161,953	429,518,235	501,737,659
<b>Receipts</b>						
Immediate annuities.....	5,688,944	7,686,992	12,857,728	21,322,796	20,874,824	9,363,110
Deferred annuities.....	21,020,193	25,676,877	34,470,916	51,060,176	54,748,242	55,193,325
Interest on fund.....	7,802,409	8,826,238	10,193,045	12,333,806	15,250,733	17,804,595
Amount transferred to maintain reserve.....	32,181	257,288	293,798	977,070	331,857	11,408,468
<b>Totals, Receipts.....</b>	<b>34,543,727</b>	<b>42,447,395</b>	<b>57,815,487</b>	<b>85,693,848</b>	<b>91,205,656</b>	<b>93,769,498</b>
<b>Payments</b>						
Payments under vested annuity contracts.....	10,849,633	11,724,554	12,938,362	14,951,693	17,588,142	20,120,185
Return of premiums with interest.....	321,996	459,321	547,985	699,651	705,993	1,184,569
Return of premiums without interest.....	109,040	287,433	374,108	373,207	555,239	245,319
<b>Totals, Payments.....</b>	<b>11,280,669</b>	<b>12,471,308</b>	<b>13,860,455</b>	<b>16,024,551</b>	<b>18,849,374</b>	<b>21,550,074</b>

## 4.—Numbers and Values of Annuity Contracts, as at Mar. 31, 1948 and 1949

Classification	1948			1949		
	Number of Contracts	Amount of Annuity	Value, at Mar. 31, of Contracts in Force	Number of Contracts	Amount of Annuity	Value, at Mar. 31, of Contracts in Force
Immediate.....	18,211	6,871,146	64,049,528	19,550	7,397,774	72,149,667
Immediate guaranteed.....	21,382	10,010,525	117,630,201	23,890	11,341,069	135,552,372
Immediate last survivor....	4,506	2,038,044	27,231,792	4,624	2,108,609	29,399,383
Deferred.....	166,836	<sup>1</sup>	220,606,714	194,228	<sup>1</sup>	264,636,237
<b>Totals.....</b>	<b>210,935</b>	<b>18,919,715<sup>2</sup></b>	<b>429,518,235</b>	<b>242,292</b>	<b>20,847,452<sup>2</sup></b>	<b>501,737,659</b>

<sup>1</sup> Undetermined.<sup>2</sup> Amount of immediate annuities.

## Subsection 7.—Welfare Services for the Indian and Eskimo

**Indian Welfare.**—In the interests of national economy as well as for humanitarian reasons the Federal Government, through the Department of Mines and Resources, promotes at public expense on Indian reserves and throughout northern Canada a number of activities designed to promote the well-being of the Indian population. Those which might be interpreted as welfare projects include, besides general welfare, the payment of Family Allowances, the administration of the



Veterans' Land Act and the promotion of handicrafts. A description of the work done in the first classification will be found at pp. 1170-1177 of the 1948-49 edition of the Year Book; an account of what is done for the welfare of Indians follows.

In pursuance of the general welfare policy of improving housing on many reserves 750 new houses were built during the year ended Mar. 31, 1949, and 1,750 dwellings were repaired. Provision was made for the construction of an additional 850 houses in the fiscal year 1949-50, most of the labour to be supplied by the owners. Relief to the amount of \$893,161.71, in the form of a basic ration of groceries rather than money, was supplied to indigent Indians. Sick and aged indigent Indians on the recommendation of medical officers received special rations, including milk, fresh vegetables, fruit and eggs, particularly during periods of convalescence. In addition, 4,000 indigent aged Indians received cash allowances amounting to \$364,000. Progress was made in the co-ordination and promotion of adult and physical education, particularly in Alberta and British Columbia where courses in these fields were initiated in co-operation with provincial universities.

Family Allowances are paid to Indian women as they are to the other women of Canada. Experience has proved that, with few exceptions, the Indian mother has intelligently set Family Allowances aside for the purposes for which they are intended. Improved clothing and more adequate school lunches are a direct result. The amount spent in Family Allowances to Indians was \$3,500,000.

Under the Veterans' Land Act more than 1,000 Indian veterans have taken advantage of rehabilitation grants which have been invested in new houses, farms, trap-lines and commercial fishing projects.

**Eskimo Welfare.**—One of Canada's most challenging welfare-administrative problems is the task of assisting the Eskimos to adjust themselves to changing conditions, while at the same time attempting to preserve their racial characteristics and personality traits. This problem calls for the continued co-operation of the Royal Canadian Mounted Police, missionaries, traders, medical personnel and others who have contact with these interesting and wholesome people. The Department of Mines and Resources is responsible for general welfare and educational services, including the payment of Family Allowances.

For many years the administration of Eskimo affairs was conducted largely through the Eastern Arctic Patrol, the annual visit of administration, medical, and scientific personnel to posts in the Arctic and Sub-Arctic. Throughout the year ended Mar. 31, 1949, local administration was carried on by the Royal Canadian Mounted Police. During periods of need, when game and fur are scarce, the police are authorized to ensure that no one suffers any undue hardship. Recently, however, more frequent inspection trips by boat and air afford a closer liaison between the departments and their local representatives, and a correspondingly more efficient administration of Eskimo affairs.

With the inception in 1945 of the Family Allowances Act, which included authorization for the payment of allowances to Eskimo children, the Royal Canadian Mounted Police were appointed District Registrars for Family Allowances. Since



that time, the assistance rendered through the payment of Family Allowances has proved of great benefit to the native people. Eskimos do not receive Family Allowances by cheque, but are paid in kind, according to an authorized list of goods restricted to items which will benefit growing children. Large quantities of powdered milk and other prepared foods are among the commodities supplied.

The payment of \$8 per month in goods to all Eskimos over 70 years of age has recently been instituted.

The Department of Mines and Resources has initiated a long-term educational plan to supplement the work that has been carried on by the various missionary societies.

Sources of employment other than hunting and trapping are gradually being opened to the Eskimos. Large reindeer projects have been established for some time in the Western Arctic and others are being considered for the Eastern Arctic. Eskimos have found lucrative work at establishments of the white man, and their opportunities for advancement should increase with improved education and experience.

## Section 2.—Federal-Provincial Programs

### Subsection 1.—Old Age Pensions and Pensions for the Blind

Old Age Pensions and Pensions for the Blind which are paid jointly by the Federal and Provincial Governments are authorized by the Old Age Pensions Act, 1927, and amendments. The Amendment of 1937 authorized pensions for the blind. The original Act and amendments up to 1947 are outlined on pages 258-260 of the 1948-49 Year Book. The amendment of Apr. 30, 1949, effective May 1, 1949, raised the maximum monthly pension to which the Federal Government will contribute.

Old Age Pensions became effective in the different provinces on various dates between 1927 and 1936 (see Table 5, p. 273). With the entry of Newfoundland into Confederation on Mar. 31, 1949, the Newfoundland Government entered into an agreement with the Federal Government for the joint payment of Old Age and Blind Pensions commencing Apr. 1, 1949. Payment of pensions in the Northwest Territories under the Federal Act began in 1929, and Yukon signed an agreement with the Federal Government for payment of both Old Age and Blind Pensions effective Apr. 1, 1949.

Old Age Pensions up to a maximum of \$40 per month may be paid to persons aged 70 and over whose annual income, including pension, is not more than \$600 for a single person, \$1,080 for a married person, or \$1,200 if married to a blind person. Pensions are paid to blind persons 21 years of age or over, whose maximum annual income, including pension, is not more than \$720 for a single person, \$920 if there is a dependent child, or in the case of married persons, if the total income of the couple including pension, is not more than \$1,200 or \$1,320 if both are blind. The exact pension payable in each case depends on the amount of outside income and resources of the pensioner. To be eligible for the Old Age Pension or a Pension for the Blind, the applicant must have resided in Canada for 20 years immediately preceding the proposed commencement of pension, or if absent from Canada during that time must have had a previous residence equal to twice the length of the period of absence.

Old Age Pensions and Pensions for the Blind are not paid concurrently, or together with an allowance under the War Veterans' Allowance Act, 1946, or to an Indian as defined by the Indian Act, and Pensions for the Blind are not paid

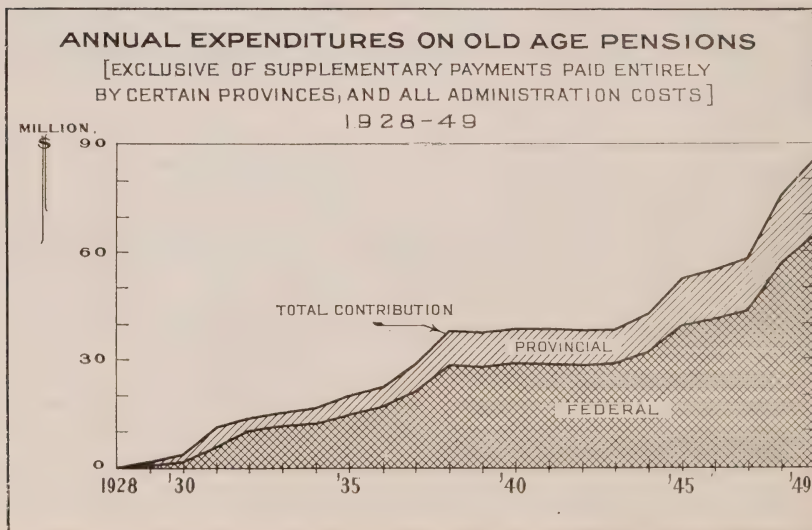
together with a pension for blindness under the Pension Act. As of Mar. 31, 1949, 251,865 persons, representing approximately 43 p.c. of the total population aged 70 or over were in receipt of Old Age Pensions, and Pensions for the Blind were paid to 9,567 persons.

The Federal Government contributes, in respect of each person in receipt of pension, a sum not exceeding 75 p.c. of \$40 monthly or of the monthly amount paid by the province, whichever is less, so that while the province may pay a higher maximum pension within the income limits fixed by the Act, the Federal contribution is payable only in respect of an amount of pension up to \$480 annually. Pensions are paid by the provinces, with Federal Government reimbursement being made through the Department of National Health and Welfare. The provinces are responsible for payment of their administrative costs.

Since 1942, certain provinces have paid supplementary allowances in addition to pensions. As of Apr. 1, 1949, the following monthly rates were in effect: British Columbia, \$10; Alberta, \$10; Saskatchewan, up to \$5; Manitoba, up to \$5; Nova Scotia, up to \$5; in Ontario the supplementary allowance was one-twelfth of the basic Federal-Provincial pension, plus an amount up to \$7.50. Following the 1949 increase in pension, some provinces ceased to pay the supplementary allowance. As of June, 1949, the following provinces were paying the supplements: British Columbia, \$10; Alberta, \$7.50; Saskatchewan, \$2.50\*.

Implementation of the Old Age Pensions Act in any given province is contingent upon the province passing enabling legislation and signing an agreement with the Federal Government. Each provincial plan must be submitted to the Governor in Council for approval and may not be changed without consent. Administrative responsibility for the program is vested in the individual province where a Board or Commission acts as the pension authority. The Federal aspects are administered by the Old Age Pensions Division of the Department of National Health and Welfare.

\* Yukon also pays a supplementary allowance. The rate since July 1, 1949, is \$10 monthly.



5.—Old Age Pensions Statistics for Years 1947-49

Province and Effective Date of Act	Year Ended Mar. 31	Average Pension <sup>1</sup>	Number of Pen- sioners <sup>1</sup>	Per- centage of Pen- sioners <sup>1</sup> to Popu- lation <sup>2</sup>	Per- centage of Persons Age 70 or Over to Popu- lation <sup>2</sup>	Per- centage of Pen- sioners <sup>1</sup> to Popu- lation Age 70 or Over <sup>2</sup>	Federal Con- tribution During Year Ended Mar. 31
		\$	No.	p.c.	p.c.	p.c.	\$
Prince Edward Island..... (July 1, 1933)	1947	19.36	2,112	2.25	6.38	35.20	350,808
	1948	24.82	2,417	2.57	6.60	38.98	478,924
	1949	26.36	2,688	2.89	6.67	43.35	593,070
Nova Scotia..... (Mar. 1, 1934)	1947	22.76	15,403	2.52	5.39	46.68	3,093,204
	1948	29.19	16,984	2.73	5.41	50.55	3,943,563
	1949	28.96	18,450	2.91	5.35	54.26	4,658,580
New Brunswick..... (July 1, 1936)	1947	22.68	13,360	2.78	4.58	60.73	2,649,020
	1948	29.37	14,524	2.96	4.50	65.72	3,634,260
	1949	29.12	15,412	3.06	4.47	68.50	3,960,422
Quebec..... (Aug. 1, 1936)	1947	24.01	54,489	1.50	3.28	45.79	11,466,940
	1948	29.08	59,204	1.59	3.33	47.86	14,714,437
	1949	28.94	64,366	1.70	3.33	50.96	16,273,942
Ontario..... (Nov. 1, 1929)	1947	24.52	65,085	1.58	5.06	31.29	13,886,364
	1948	29.71	70,765	1.69	5.24	32.27	17,999,870
	1949	29.50	78,413	1.82	5.33	34.26	20,292,451
Manitoba..... (Sept. 1, 1928)	1947	24.53	13,583	1.87	4.26	43.82	2,826,747
	1948	29.71	15,026	2.02	4.39	46.09	3,727,392
	1949	29.61	16,110	2.13	4.61	46.16	4,127,098
Saskatchewan..... (May 1, 1928)	1947	24.37	14,204	1.71	3.86	44.39	3,085,226
	1948	29.60	14,806	1.76	3.84	45.84	3,836,980
	1949	29.19	15,785	1.85	4.03	45.89	4,115,290
Alberta..... (Aug. 1, 1929)	1947	24.11	12,738	1.59	3.63	43.92	2,699,425
	1948	29.69	13,792	1.68	3.63	46.28	3,466,114
	1949	29.49	14,988	1.77	3.90	45.42	3,840,155
British Columbia..... (Sept. 1, 1927)	1947	24.22	18,039	1.80	5.08	35.37	3,767,623
	1948	29.54	21,621	2.07	5.31	39.03	5,171,017
	1949	29.19	25,633	2.37	5.70	41.54	6,363,538
Northwest Territories..... (Jan. 25, 1929)	1947	24.69	16	0.13	1.52	8.74	4,222
	1948	29.21	19	0.16	1.52	10.38	5,831
	1949	28.75	20	0.17	1.52	10.93	7,664
<b>Totals.....</b>	<b>1947</b>	<b>24.03</b>	<b>209,029</b>	<b>1.70</b>	<b>4.31</b>	<b>39.39</b>	<b>43,829,579</b>
	<b>1948</b>	<b>29.41</b>	<b>229,158</b>	<b>1.82</b>	<b>4.42</b>	<b>41.27</b>	<b>56,978,388</b>
	<b>1949<sup>3</sup></b>	<b>29.22</b>	<b>251,865</b>	<b>1.96</b>	<b>4.52</b>	<b>43.27</b>	<b>61,232,210</b>

<sup>1</sup> For the month of March of the fiscal year indicated.    <sup>2</sup> Based on population estimate for preceding year.    <sup>3</sup> Not including Newfoundland and Yukon which entered the Old Age Pension Scheme in 1949.

## 6.—Statistics of Pensions for the Blind for Years 1947-49

Province and Effective Date of Act	Year Ended Mar. 31	Average Pension <sup>1</sup>	Number of Pensioners <sup>1</sup>	Percentage of Pensioners <sup>1</sup> to Population <sup>2</sup>	Federal Contribution During Year Ended Mar. 31
		\$	No.	p.c.	\$
Prince Edward Island..... (Dec. 1, 1937)	1947	22.84	121	0.129	24,211
	1948	27.91	126	0.134	29,424
	1949	28.58	122	0.131	30,929
Nova Scotia..... (Oct. 1, 1937)	1947	24.25	685	0.112	147,486
	1948	29.59	805	0.130	181,815
	1949	29.62	878	0.138	224,480
New Brunswick..... (Sept. 1, 1937)	1947	24.65	758	0.158	166,414
	1948	29.83	896	0.182	217,407
	1949	29.66	1,000	0.199	263,021
Quebec..... (Oct. 1, 1937)	1947	24.73	2,709	0.075	605,761
	1948	29.69	3,178	0.086	801,694
	1949	29.60	3,544	0.093	939,002
Ontario..... (Sept. 1, 1937)	1947	24.71	1,623	0.040	359,860
	1948	29.83	1,814	0.043	464,864
	1949	29.63	2,070	0.048	564,315
Manitoba..... (Sept. 1, 1937)	1947	24.71	391	0.054	86,625
	1948	29.02	455	0.061	114,975
	1949	29.68	503	0.066	134,300
Saskatchewan..... (Nov. 15, 1937)	1947	24.83	363	0.044	81,939
	1948	29.78	409	0.049	107,611
	1949	29.69	451	0.053	124,068
Alberta..... (Mar. 7, 1938)	1947	24.51	290	0.036	62,155
	1948	29.98	332	0.040	81,256
	1949	29.84	418	0.049	104,681
British Columbia..... (Dec. 1, 1937)	1947	24.69	370	0.037	80,435
	1948	29.67	460	0.044	108,589
	1949	29.15	580	0.054	146,888
<b>Totals (including Northwest Territories).....</b>	<b>1947</b>	<b>24.63</b>	<b>7,311</b>	<b>0.059</b>	<b>1,615,136</b>
	<b>1948</b>	<b>29.73</b>	<b>8,476</b>	<b>0.067</b>	<b>2,107,990</b>
	<b>1949<sup>3</sup></b>	<b>29.59</b>	<b>9,567</b>	<b>0.074</b>	<b>2,532,074</b>

<sup>1</sup> For the month of March of the fiscal year indicated. <sup>2</sup> Based on population estimate for preceding June. <sup>3</sup> Not including Newfoundland and Yukon which entered the Pensions for the Blind Scheme in 1949.

## Subsection 2.—National Physical Fitness Program

Under the National Physical Fitness Act of 1943 a joint Federal-Provincial program is carried on to improve the physical and mental fitness and the cultural development of the Canadian people. The program is designed primarily to assist and stimulate local community activity, with the Federal and Provincial Governments having as their main concern the initiation and provision of services requested by the community.

Through the Act, Federal grants totalling \$225,000 annually, paid on a matching per capita basis, are made available each year to those provinces which undertake to promote a fitness and recreational program as provided in the Act. With the entry of Ontario in April, 1949, eight provinces participate in the program. On Newfoundland entering Confederation, in 1949, special provision was made for an additional \$7,000 to be made available for the new Province in the event that it chose to participate.

The National Council on Physical Fitness, which is composed of not fewer than three nor more than ten members, appointed by the Governor in Council, was established under the Act. The National Council which meets at least semi-annually, serves in an advisory capacity to the Minister of National Health and Welfare and provides liaison between the different levels of government and with



national voluntary organizations actively engaged in the fitness and recreation field. Some participating provinces have established similar advisory bodies; others utilize interdepartmental committees.

The Act is administered by the Physical Fitness Division of the Department of National Health and Welfare. In addition to administering the grants to the provinces, the Division performs the administrative work of the National Council of Physical Fitness, co-operates with other Federal Departments, and with national agencies and organizations, collects and distributes information originating in this and other countries, interprets the national program of fitness through publications and reports, and is concerned with the conducting of research, experiments and demonstrations.

Provincial programs are administered by the Departments of Education in all provinces except Nova Scotia and Manitoba where they are the responsibility of the Department of Public Health and the Department of Health and Public Welfare, respectively. Saskatchewan and Manitoba have passed provincial physical fitness legislation; programs in other provinces are operated under departmental regulation. As the actual carrying out of fitness and recreation projects is for the most part a local responsibility the provincial program is organized with a view to strengthening and aiding the community, and agencies active in the field. The underlying policies are: the development of a program of fitness in relation to the needs and determined priorities of the local community; the development of both volunteer and paid leadership through the conduct of training courses and, in some instances, the payment of salaries; co-ordination and extension of existing agencies, with programs being initiated only where agencies are not available to undertake them, and in certain provinces the provision of financial aid to local programs approved by the province.

Liaison with other countries was considerably extended in 1949, and particularly with nations of the Commonwealth, as a result of the International Congress for Physical Education, Recreation and Rehabilitation which was held at London in July, 1948. In Canada increasing co-operation between national organizations interested in fitness programs was achieved through the joint meetings held in April, 1948, by the National Council on Physical Fitness and the Canadian Association for Health, Physical Education and Recreation, and by the convening of the first National Conference of Sports Governing Bodies.

The development of the program in all provinces has been characterized by an emphasis on community recreational planning which is particularly Canadian in character. An important trend has been the great increase in co-operative effort, through the donation of labour by members of the community for construction projects and the sharing between small centres of facilities and equipment. Shortage of trained personnel remained the most serious obstacle to the expansion of programs. To assist in overcoming this shortage the Federal Government in March, 1949, provided a number of scholarships, to be awarded on the recommendation of the National Council, for the post-graduate training of fitness and recreational personnel.

Films are used extensively for instructional purposes. Those produced to further the fitness movement have included *Fit for Tomorrow*, *Fitness is a Family Affair* and *When all the People Play*. In addition, films from all sources, approved by national appraisal committees composed of experts in fitness and recreation, are made available for showings throughout the country through the preview film library service maintained by the Physical Fitness Division, which circulates them to the provinces periodically on a "preview with a view to purchase" basis.

### 7.—Federal Grants Available and Amounts Paid Under the National Physical Fitness Act, 1944-49

Province	Grant Available, 1949-50	Total Amount Paid 1944-45 to 1948-49	Province or Territory	Grant Available, 1949-50	Total Amount Paid 1944-45 to 1948-49
	\$	\$		\$	\$
Newfoundland <sup>1</sup> .....	7,000	—	Saskatchewan.....	17,521	87,203
Prince Edward Island.....	1,859	6,820	Alberta.....	15,568	72,746
Nova Scotia.....	11,302	49,340	British Columbia.....	15,993	80,056
New Brunswick.....	8,944	8,468	Northwest Territories.....	234	468
Quebec <sup>1</sup> .....	65,151	—	Yukon <sup>1</sup> .....	97	—
Ontario <sup>2</sup> .....	74,063	—			
Manitoba.....	14,270	24,109	<b>Totals.....</b>	<b>232,000</b>	<b>329,209</b>

<sup>1</sup> Did not participate in program.

<sup>2</sup> Did not enter program until April, 1949.

### Subsection 3.—Training Programs

Under the Vocational Training Co-ordination Act of 1942 and amendments, the Federal Department of Labour, in co-operation with the Provincial Governments, carries on various training projects. Details of these schemes will be found in Chapter XIX.

## Section 3.—Provincial Programs

### Subsection 1.—Mothers' Allowances

Nine provinces have statutory provision for allowances to enable certain needy mothers to remain at home to care for their dependent children. The first Act was passed by Manitoba in 1916, and four other provinces enacted similar legislation between 1917 and 1920. The Nova Scotia and Quebec Acts came into effect in 1930 and 1938, respectively; the New Brunswick Statute of 1938 became effective in 1943; and the Prince Edward Island Act of 1949 became effective July 1, 1949. While Newfoundland does not have any comparable legislation, some assistance is given to needy widows, dependent children and orphans.

The total cost is paid from provincial treasury funds except in Alberta, where a 1949 amendment reduced the contribution required from the municipality of residence from 25 to 20 p.c. of the allowance. In Quebec, the provision permitting a levy of not more than 5 p.c. of an allowance on a municipality has not been implemented.

There are two conditions of eligibility required by all provinces: means test and residence. The amount of outside income and resources allowed varies from province to province. Residence in the province at the time of application is required by each province, and the necessary period of previous residence varies from one year in Saskatchewan, to two years in Ontario and Manitoba, three years in British Columbia, New Brunswick, Nova Scotia and Prince Edward Island, and five years in Quebec. The Alberta Act requires the husband to have had his home in the province at the time of his death, his committal to an institution, or his desertion. In all provinces the child or children must live with the recipient of the allowance.

Nationality is an important condition of eligibility in all provinces except Alberta, Saskatchewan and Ontario. In Quebec the mother either must possess Canadian citizenship by birth or must have been a Canadian citizen for 15 years or must be the wife or widow of a Canadian citizen. The other provinces either require that the applicant be a British subject or the wife or widow of a British subject, or that her child be a British subject. In Nova Scotia the applicant herself must be a British subject and in Prince Edward Island, New Brunswick and Mani-

toba, the child is eligible if he is a British subject even if the mother is not. In British Columbia a mother may be eligible if she is or was a British subject by birth or naturalization. In New Brunswick, Nova Scotia, and Prince Edward Island an allowance may not be paid to an Indian as defined by the Indian Act of Canada.

Since the introduction of the legislation there has been a general extension of coverage. As of May, 1949, an applicant must be a widow or her husband must be mentally incapacitated or, except in Alberta, he must be totally and permanently disabled. Total and permanent physical disability is defined in various ways: for example, in British Columbia and Quebec the physical disability must be such that it may reasonably be expected to last at least one year, and in Saskatchewan the specified period is nine months or more. All provinces except Alberta consider a mother eligible for an allowance if her husband is receiving treatment for tuberculosis.

Deserted wives who meet specified conditions are eligible in all provinces except Nova Scotia, but the period which must elapse after desertion varies from one to seven years. Mothers who have been divorced or legally separated from their husbands are eligible in British Columbia, Manitoba and Ontario and a divorced mother may be paid an allowance in Saskatchewan. Subject to certain conditions, foster mothers caring for children whose parents are dead or disabled are eligible for allowances. In Saskatchewan when the mother is deceased or in a mental institution or sanatorium, the allowance may be paid to the father if he is incapacitated and living at home with the children. All provinces grant allowances in respect of legally adopted children but in some cases the child must have been adopted by the husband and wife jointly. In Manitoba, Saskatchewan, Alberta and British Columbia, allowances are paid for children born out of wedlock if certain conditions are fulfilled.

Since the 1949 amendment to the Nova Scotia Act, mothers of one or more children are eligible in all provinces. Allowances may be paid in respect of children under the age of 16, except in Manitoba where the age limit is 15 years. In special circumstances the age limit is extended: Saskatchewan, Ontario, Quebec and New Brunswick continue the allowance in respect of a child who has reached 16 years of age and is at school until the end of the academic year; British Columbia and Alberta pay an allowance in respect of a child who is attending school until he has reached 18 years; British Columbia and Manitoba pay allowances in respect of children under 18 who are mentally and physically handicapped, and Quebec and Saskatchewan continue the allowance until a child is 19 or 21 years of age, respectively, if he is physically or mentally unable to work. Five provinces also make provision in the Act or Regulations for the payment of allowances to needy mothers who are not strictly eligible under the terms of the Act. In other provinces cases of this kind are generally cared for under social assistance or relief.

In all provinces the Act is administered by Public Welfare authorities and most provinces have a Board or Commission to make decisions regarding eligibility and amounts of allowance to be paid under the Act. In most cases Advisory Boards or local advisory committees are appointed to make recommendations regarding the operation of the Acts.

The legislation in British Columbia and Alberta provides for reciprocal agreements with other provinces for the payment of allowances but no such agreements are in effect.

In all provinces the amount of allowance granted is fixed by the administrative authority on a means test basis. Table 8 shows the maximum monthly rates of allowance in each province. Table 9 gives statistics for the individual provinces providing mothers' allowances.



## 8.—Maximum Monthly Rates of Mothers' Allowances as of May, 1949

NOTE.—Actual rates are set after consideration of circumstances of each applicant.

Province	Mother and One Child	Each Additional Child	Disabled Father at Home	Family	Supplementary
P. E. Island <sup>1</sup>	\$25.00	\$5.00	No additional allowance granted.	\$50.00	None granted.
Nova Scotia	No set maximum; rates based on average family income for community in which family lives.		No special provision; included in budget on which allowance is based.	\$80.00 (Minimum \$45.00)	None; fuel and winter clothing included in budget.
New Brunswick	\$27.50	\$ 7.50	No additional allowance.	\$60.00	Director may grant an additional \$7.50 for rent if circumstances require it but only if allowance paid is below maximum; fuel and winter clothing included in allowance.
Quebec	\$30.00 (population under 5,000) \$35.00 (population 5,000 or over)	\$1.00 for 2nd, 3rd, 4th, 5th. \$2.00 for 6th, 7th. \$3.00 for each subsequent child.	\$5.00	No amount set. (Minimum \$5.00)	\$5.00 if recipient physically or mentally unable to work; fuel and winter clothing included in allowance. Allowance may be continued for short periods when father on leave of absence from a mental hospital or recovered from tuberculosis but still unable to work full-time.
Ontario	\$50.00 for mother and 1 child. \$24.00 for foster mother and 1 child.	\$10.00 \$43.00 foster mother and 2 children, with \$10.00 for each additional orphan child.	\$10.00	No amount set.	\$10.00 where need is apparent to the Commission. Allowance for fuel based on size of home and cost of coke from Oct. 1 - May 31 of previous year. Winter clothing included in allowance and/or supplementary allowance.



8.—Maximum Monthly Rates of Mothers' Allowances as of May, 1949—concluded

Province	Mother and One Child	Each Additional Child	Disabled Father at Home	Family	Supplementary
Manitoba	\$48.00—includes food, clothing and operating expenses.	\$9.00 for child aged 1-6 years. \$11.75 for child aged 7-11 years. \$14.00 for child aged 12-14 years.	\$15.75	\$137.00	Up to \$25.00 if necessary; fuel allowance granted; winter clothing included in budget.
Saskatchewan	\$25 for mother and 1 child. \$15 for guardian and 1 child.	\$10 for 2nd. \$5 for each subsequent child. \$75 for a mother and ten or more children.	\$10.00	\$85.00	Local municipality may grant supplementary aid under Social Assistance program. Costs shared equally by the Province and municipality.
Alberta	\$35.00	\$15 for 2nd. \$10 for 3rd, 4th. \$8 for 5th. \$7 for 6th. \$5 for 7th, 8th, 9th or more.	No additional allowance.	\$100.00	Up to \$10.00 a month may be granted, the cost to be paid entirely by the Province. Assistance may be given, if needed, from a Benevolent Fund made up of moneys from anonymous donors. Fuel and winter clothing included in allowance.
British Columbia	\$42.50 plus \$7.50 from Social Allowance funds, less \$5.00 if family owns home.	\$7.50 plus \$1.00 from Social Allowance funds.	\$7.50 plus \$1.00 from Social Allowance funds.	Maximum set but no limit to number who may benefit.	Extra expenditures, such as needed repairs to the home and loss of possessions through fire, can be met through Social Allowance funds. No special fuel allowance. Nutrition allowance available for tuberculosis patients and families.

<sup>1</sup> The Prince Edward Island Mothers' Allowances Act did not come into effect until July 1, 1949.

## 9.—Mothers' Allowances, by Provinces, 1944-48

Province and Year	Families Assisted	Children Assisted	Benefits Paid
	No.	No.	\$
<b>Nova Scotia<sup>1</sup>—</b>			
1944.....	1,365	3,840	630,723
1945.....	1,441	4,057	734,828
1946.....	1,615	4,474	846,964
1947.....	1,787	4,778	919,870
1948 <sup>2</sup> .....	1,938	5,099	1,005,112
<b>New Brunswick<sup>1,3</sup>—</b>			
1945.....	918	2,624	384,802
1946.....	1,207	3,308	487,602
1947.....	1,396	3,771	598,550
1948 <sup>4</sup> .....	1,526	4,168	680,551
<b>Quebec<sup>5</sup>—</b>			
1944.....	11,973	35,919	3,698,044
1945.....	13,057	39,396	4,186,308
1946.....	13,685	41,055	4,664,235
1947.....	14,312	40,217	4,766,288
1948.....	15,321	45,963	5,138,123
<b>Ontario<sup>6</sup>—</b>			
1944.....	9,176	18,032	3,750,861
1945.....	7,083	14,567	3,634,247
1946.....	6,687	13,795	3,451,310
1947.....	6,587	13,736	3,375,668
1948.....	7,817	17,620	3,484,808
<b>Manitoba<sup>5</sup>—</b>			
1944.....	643	1,951	319,016
1945.....	600	1,843	319,871
1946.....	613	1,835	354,360
1947.....	685	1,921	373,030
1948 <sup>7</sup> .....	708	1,987	383,682
<b>Saskatchewan<sup>8</sup>—</b>			
1944.....	2,222	5,321	520,272
1945.....	2,078	4,912	651,723
1946.....	2,117	4,992	868,403
1947.....	2,349	5,498	894,962
1948 <sup>9</sup> .....	2,986	7,137	1,026,112
<b>Alberta<sup>6</sup>—</b>			
1944.....	1,830	3,918	555,075
1945.....	1,701	3,562	570,754
1946.....	1,559	3,275	569,137
1947.....	1,561	3,385	592,655
1948.....	1,622	3,431	643,702
<b>British Columbia<sup>5</sup>—</b>			
1944.....	1,080	2,246	581,541
1945.....	940	1,966	528,442
1946.....	905	2,132	498,901
1947.....	863	1,832	488,866
1948 <sup>10</sup> .....	751	1,608	441,967

<sup>1</sup> For year ended Oct. 31.

from Oct. 31 to Nov. 30.

Oct. 31, 1948.

<sup>2</sup> Allowances paid since May 1, 1944.<sup>3</sup> For year ended Dec. 31.<sup>4</sup> Numbers benefiting as at

Mar. 31. This includes 9 months of 1947.

<sup>5</sup> For year ended Mar. 31.<sup>6</sup> For year ended Apr. 30.<sup>7</sup> For year ended

Mar. 31, since end of fiscal year was changed from Apr. 30 to Mar. 31.

<sup>8</sup> For year ended Oct. 31.<sup>9</sup> Allowances paid since May 1, 1944.<sup>10</sup> Numbers benefiting as at

Mar. 31, 1948.

## Subsection 2.—Welfare Services

Provincial welfare services generally are administered by Provincial Welfare Departments which also have a supervisory authority over municipal welfare programs. Local voluntary agencies are in most cases incorporated under provincial law. The following outline covers provincial public welfare services, exclusive of Old Age Pensions, Pensions for the Blind and Mothers' Allowances which are treated

separately, that is, measures of child care and protection, care of the aged, social assistance or relief and special services. The medical services available to recipients of social assistance and aged persons are described in Health Activities of the Provincial Governments, Part I, Section 2, pp. 240-250.

### Newfoundland

Prior to the union of Newfoundland with Canada, Mar. 31, 1949, public welfare services were administered by the Department of Public Health and Welfare operating under the Health and Public Welfare Act of 1931 and amendments. With the entry of Newfoundland into Confederation two separate portfolios were established for Health and Welfare.

*Child Care and Protection.*—With the exception of orphanages, child welfare has developed as a public service. Regional Officers, acting under the Director of Child Welfare, administer the Welfare of Children Act, 1944, which embraces legislation dealing with neglected children, children of unmarried parents, adoptions, mentally defective children, juvenile delinquents and training schools. The Child Welfare Division pays for the maintenance of those neglected children who, by court order, are made wards of the Director and are placed in foster homes. The Division operates an Infants Home providing short-term care for children up to two years of age. Orphanages are specifically outside the jurisdiction of the Welfare of Children Act and are administered by the religious denominations, with government subsidies at the rate of \$100 per year for each child admitted.

By statute, the Director of Child Welfare is Judge of the Juvenile Court, which is located at St. John's. The Division also maintains a Boys' Home and Training School and a Girls' Home and Training School with accommodation for 164 and 17, respectively.

*Care of the Aged.*—The Department operates at St. John's a Home for the Aged and Infirm which has a bed capacity of 147.

*Social Assistance.*—At the time of union with Canada allowances on a limited scale were being paid to needy widows, orphans and the infirm, and assistance provided for the able-bodied unemployed as well as for those unable to work. The costs of this aid and of administration were borne entirely by the central government. Old Age Pensions were formerly paid to needy persons who were 75 years of age or over, or to the widow of a pensioner if she was 65 at the time of her husband's death. This was superseded in April, 1949, by the joint Federal-Provincial program discussed in Part II, Section 2, pp. 271-274.

### Prince Edward Island

Public welfare services are administered by the Department of Health and Welfare. The Province constitutes a single welfare unit, with no geographic or political division into municipalities, and is responsible for social aid except in the city of Charlottetown and the seven incorporated towns which are charged with the care and maintenance of their own needy residents.

*Child Care and Protection.*—Under the Children's Act, the Director of Child Welfare is responsible for the placement in boarding homes, foster homes or institutions, of neglected or delinquent children appearing before the juvenile courts. Two Children's Aid Societies operate under the Children's Act and efforts are being made to reorganize the one in Charlottetown for more effective service. Provincial grants are made to these Societies and to the two private orphanages, one Protestant and one Roman Catholic.

*Care of the Aged.*—The aged and infirm are cared for in the Falconwood Mental Hospital and Provincial Infirmary. Additional accommodation is planned for 100 old people in a building reconverted for the purpose.

*Social Assistance.*—The Department provides relief in rural areas, and assists Charlottetown and the incorporated towns by a grant of 50 p.c. of accepted social assistance payments.

### **Nova Scotia**

Public welfare services are administered by the Department of Public Welfare.

*Child Care and Protection.*—The Child and Family Welfare Branch is responsible for the administration of the Adoption Act; assistance to and supervision of the 12 Children's Aid Societies and, in unorganized districts, carrying out the duties normally delegated to the Societies; inspection of all child-caring institutions and reformatories; the Nova Scotia Training School for mentally defective children; the Nova Scotia School for Boys which cares for delinquent boys; and operation of six juvenile courts together with supervision of their probationary staff.

Wards of the Children's Aid Societies are placed in foster homes when possible, or in child-caring institutions. The Province bears 40 p.c. of maintenance costs up to \$5 per week, the municipality of residence paying the remainder. The Province may pay an extra \$3 at the discretion of the Minister.

The municipality pays \$175 and \$200 per annum, respectively, for children in the Nova Scotia School for Boys and in the Nova Scotia Training School, all other expenses being borne by the Province. Financial provision for children in private reformatories is at the rate of \$175 per annum from the municipality and \$400 from the Province.

*Care of the Aged.*—Homes for the Aged are operated by municipalities and religious and private bodies under provincial inspection, with no provincial or Federal support other than the Old Age Pension described in Part II, Section 2, pp. 271-274. Old Age pensioners boarding in these homes may pay their pensions directly to the institutions or, if the pensioner is incapable of managing his own affairs, the pension may be paid to the institution by the Department.

*Social Assistance.*—Relief to unemployables is a local responsibility.

### **New Brunswick**

Public welfare services are administered by the Department of Health and Social Services.

*Child Care and Protection.*—Responsibility for protection and placement services is largely delegated to the 17 Children's Aid Societies, one in each county and one in each of the cities of Fredericton and Moncton. Orphanages are operated by religious, private, or in certain cases, municipal organizations. With a few exceptions, boarding homes for children must be licensed and are subject to provincial inspection, as are all child-caring institutions. The Province and the municipality of residence each pay \$225 a year towards the maintenance of every child committed to any institution or home. The Department may place blind or deaf-mute children in the School for the Blind and School of Deaf Mutes at Halifax, N.S.

*Care of the Aged.*—Homes for the Aged are operated under municipal, religious, fraternal, or private auspices. They are subject to provincial inspection but receive no financial support from the Province.

*Social Assistance.*—Relief to unemployables is a local responsibility.



## Quebec

Major responsibility for the administration of public welfare services is shared by the Department of Health and the Department of Social Welfare and Youth. The latter is responsible for preventive and rehabilitative work among juvenile delinquents, grants subsidies to recreation groups, camps, sports, parks and playgrounds, and administers Old Age Pensions and Needy Mothers' Assistance.

The Department of Health administers the Public Charities Act which embodies the Provincial Government policy of granting subsidies to religious and private institutions wherever they exist rather than creating public services. Under the Act, provision is made for subsidies to institutions on a per diem basis, with the Province paying one-third of the cost of maintenance of indigent persons admitted, the municipality of residence paying one-third and the institution the other third.

*Child Care and Protection.*—Needy or abandoned children are cared for largely in institutions such as orphanages, industrial schools, nurseries, and other Homes assisted under the Public Charities Act. There is a trend towards foster-home care and the increasing use of social-work methods in institutions. Training and rehabilitation programs are carried on in the six industrial schools and four reform institutions to which children are committed. A Child Guidance Clinic in the Montreal Juvenile Court operates directly under the jurisdiction of the Minister of Social Welfare and Youth as part of the provincial program for the prevention of juvenile delinquency.

Children who have not been infected but who have been exposed to tuberculosis are placed with rural families and supervision of their health and welfare is maintained by the Department of Health in co-operation with local doctors and clergy.

*Special Services.*—Aid to Youth, a program under the Department of Social Welfare and Youth, provides vocational guidance and scholarship grants to young people. The Department also sponsors some 50 specialized training schools and correspondence courses.

*Care of the Aged.*—Institutional care for indigent old people is provided under the terms of the Public Charities Act.

*Social Assistance.*—Relief to families is not provided in Quebec but institutional care for indigents is available under the terms of the Public Charities Act. The Department of Colonization operates a program whereby needy families are settled on the land in newly opened districts, and are supervised and granted financial aid until they become self-supporting.

## Ontario

Public welfare services are administered by the Department of Public Welfare. Legislation in 1948 authorized single municipalities, districts, or groups of municipalities or districts, to join together, to establish welfare units for more efficient administration, and provided for provincial payment of 50 p.c. of administrative costs.

*Child Care and Protection.*—The Children's Aid Branch of the Child Welfare Division is responsible for the administration of the Children's Protection Act, the Children of Unmarried Parents Act and the Adoption Act, and for supervision of the 53 Children's Aid Societies and all institutions for children in the Province. Under a 1949 amendment to the Children's Protection Act, the Provincial Government is enabled to reimburse municipalities against which an order has been made

for the maintenance of children committed to the care and custody of a Children's Aid Society in the amount of 25 p.c. of the net municipal expenditure; and, by a further amendment, to make grants to Children's Aid Societies of 25 p.c. of the amount they raise through private campaigns for funds. These grants are in addition to the appropriate token grants based on the grading status of a Society.

The Day Nurseries Branch of the Division administers the Day Nurseries Act, 1946, which provides for the establishment of day nurseries in Ontario. Under the Act, any municipality establishing a day nursery may receive a provincial contribution equal to one-half its expenditures on operation and maintenance. The Act also provides for the supervision of all day nurseries throughout Ontario.

The British Child Guests Branch continues the supervision of the British children evacuated from the United Kingdom during the Second World War who still remain in Ontario.

*Care of the Aged.*—Homes for the Aged are operated under provincial supervision by counties, cities, districts and religious and benevolent societies. The Homes for the Aged Act passed at the 1949 session of the Legislature made it obligatory for both counties and municipalities to establish Homes for the Aged or to make arrangements with other municipalities for their care. Municipality is defined as a city, county or separated town. The Act also made additional provincial assistance available by enabling the Provincial Government to pay 50 p.c. of the construction cost of a new home or of additions or extensions to existing homes. In Districts, the Provincial Government is enabled to pay that portion of the cost of construction which may be allocated to unorganized territories. Under the new Act, also, the Provincial Government may pay 50 p.c. of the net cost of maintenance of such an institution. Plans for any new construction must be approved by the Minister of Public Welfare.

All private institutions for the care of the aged operate under the Charitable Institutions Act. This Act has not been changed but additional indirect assistance has been given many institutions by applying the per diem rate allowed under the Act to all old age pensioners resident in such institutions.

*Social Assistance.*—Regulations under the Unemployment Relief Act authorize contributions on the part of the Department of Public Welfare toward the alleviation of distress of unemployable persons. Schedules of assistance are provided in the regulations and are adjusted from time to time in accordance with changing food prices. Municipalities are reimbursed 50 p.c. of their expenditure, but in the unorganized areas the Province administers and pays the total cost of aid rendered.

*Assistance to Veterans.*—Through the Soldiers' Aid Commission, advice and emergency assistance is extended to ex-service men of the First and Second World Wars and to their families.

## Manitoba

Public welfare services are administered by the Public Welfare Division of the Department of Health and Public Welfare.

*Child Care and Protection.*—In unorganized territory basic child care and protection services are provided by the Division of Public Welfare. In most of the municipally organized areas, these services are maintained by four undenominational Children's Aid Societies which receive substantial provincial support under a new system of matching grants. Payments are based on a formula of the number and cost of social workers per 100,000 of population in a representative area where the

Province provides child welfare services. Under agreement between the societies and the Government, payment is made conditional on the provision of a basic level of service and the collection of equivalent voluntary contributions.

Heretofore the municipality of residence was responsible for the total cost of maintenance of wards. Beginning Jan. 1, 1949, the Province assumed a portion of these costs by reimbursing municipalities on a *pro rata* basis from a \$300,000 fund provided for the purpose.

The Child Welfare Division provides foster-home care and supervision for mental defectives placed under the custodianship of the Director. The Broadway Home at Winnipeg, an advanced training school for mentally defective girls, comes under the joint direction of the Divisions of Public Welfare and Psychiatry.

*Care of the Aged.*—All institutions and nursing homes caring for the aged and infirm are supervised and licensed by the Provincial Department of Health and Welfare under Public Health Act Regulations. The largest of these Institutions, with 420 beds, accepts only applications made through public authorities where a definite guarantee of maintenance is provided by either the Province or the municipality. Other than this no financial assistance is given by the Province.

*Social Assistance.*—The Province assumes responsibility for social assistance or general relief in unorganized territory and for assistance to non-resident transients. Responsibility for other general assistance rests with the municipality of residence.

During the year, agreements were completed with the Federal Department of Labour for the joint financing of a provincial program of assistance to indigent persons of the Japanese race settled in Manitoba by the British Columbia Security Commission, and for a program of medical assistance to needy displaced persons brought to Manitoba by the Federal Department of Labour. The cost of this program of medical assistance is to be shared equally by the Federal and Provincial Governments.

### Saskatchewan

Public welfare services are administered by the Department of Social Welfare and Rehabilitation.

The Department is divided into four main branches: Child Welfare, Old Age Pensions, Social Aid and Corrections; it operates the Home for the Aged and Infirm, and the Regina Nursing Home. The Social Welfare Board established by the Social Welfare Act, 1945, consists of the Deputy Minister as Chairman, and the Directors of the four major branches; it supervises the granting of all forms of assistance provided by the Department and acts in an advisory capacity to the Minister of Social Welfare.

*Child Care and Protection.*—The Child Welfare Act and the Education of Blind and Deaf Children Act are administered by the Child Welfare Branch and involve supervision of all child welfare services in the Province. When possible, children are placed in foster homes, and in some cases older children are placed on farms under wage agreements. The Branch operates five child-caring institutions for the care of wards until they can be returned to their parents or placed in foster or adoption homes. A portion of the maintenance costs of all wards is paid by the municipality of residence, except for children born out of wedlock where an attempt is made to recover from the father. Financial responsibility, however, is limited so that it will not exceed one mill of the municipality's tax rate, and ceases when the child reaches 16 years of age.



*Correctional Services.*—Since April 1, 1947, responsibility for administration of the provincial gaols has rested with the Corrections Branch of the Department. The Branch is also responsible for the Industrial School for Boys, the four provincial penal institutions, and probation services. Provincial correctional services are being revised to provide for better segregation and for adequate vocational training and social case work.

*Care of the Aged.*—The Department operates two Homes for the Aged and Infirm which provide accommodation for 175 persons. Plans are under way for an additional home to accommodate another 150 to 200 persons. The Social Welfare Act provides for the licensing and supervision of all privately operated homes.

*Social Assistance.*—The needs of indigent persons are met by the Social Aid Branch in co-operation with the various municipal units; the Province contributes 50 p.c. of the cost of food, clothing and shelter furnished by municipalities to needy residents, employable and unemployable. The entire cost of assistance to transient indigents is borne by the Province. Through the Department of Public Health needy mothers may receive grants not exceeding \$25 prior to or immediately following the birth of a child.

*Métis Rehabilitation.*—The Branch operates a farm where the Métis—persons of mixed Indian and White blood who do not qualify under the Indian Act—are instructed in modern methods of farming while being paid for their work, and conducts two schools for Métis children.

*Special Services.*—A Division of the Branch provides training and placement services for the handicapped and crippled; one-half the cost of this training is borne by the Province, one-half by the municipality of residence.

## Alberta

Public Welfare measures are administered by the Department of Public Welfare. The Department is divided into seven main branches: Public Assistance, Child Welfare, Mothers' Allowances, Old Age Pensions, Rehabilitation, the Single Men's Division and the Veterans Welfare Commission.

*Child Care and Protection.*—The care of children who become wards of the Government by neglect, delinquency, or indenture and agreement is under the exclusive control of the Child Welfare Commission. Children may be placed in foster homes, paid boarding homes, or institutions, depending upon the individual circumstances. Financial responsibility for children who are made wards of the Government and for whom a maintenance order has been issued by the Court rests with the municipality of residence. However, the Public Welfare Assistance Act, 1949, authorized provincial grants of up to 60 p.c. of the cost of the maintenance of these wards. Reform schools for incorrigible delinquent children are maintained, and other delinquent children are placed in private homes under the supervision and inspection of the Home Investigating Committee of the Department.

*Care of the Aged.*—The Home for Aged or Infirm Act, 1945, provides for the payment of grants to municipalities of up to 50 p.c. of the cost of maintaining aged or infirm persons resident in licensed homes.

*Social Assistance.*—The Province pays the total cost of assistance to indigent families who have no municipal residence, and to indigent families in unorganized districts. The Public Welfare Assistance Act, 1949, authorized the Province to



issue grants to municipalities of an amount up to 60 p.c. of the cost of maintenance of indigent residents. The Maternal Welfare Act provides for a grant of up to \$15 to needy mothers prior to or immediately following the birth of a child.

The Bureau of Public Welfare operates a rehabilitation service to families by settling them on suitable farm lands. The Single Men's Division maintains four hostels, one each at Edmonton and Calgary and two in rural areas, to care for destitute single homeless men without permanent municipal domicile. Single ex-service men are cared for at Calgary and Edmonton without being institutionalized. The Province assumes the cost of these projects.

*Métis Rehabilitation.*—The rehabilitation of the Métis is the responsibility of the Métis Rehabilitation Branch and has been carried out by the setting aside of tracts of land as Métis Settlement Areas, where settlers have exclusive fishing, hunting and trapping rights and where they are encouraged to engage in lumbering, agriculture and stock-raising. Educational and social services are provided, and government-operated stores sell goods at cost price.

### British Columbia

Public welfare services are administered by the Social Welfare Branch of the Department of Health and Welfare.

*Organization and Field Service.*—The Province is divided for administrative purposes into five Regions with 27 District Offices. This decentralized administration allows for regional payment of social allowances and professional supervision of staff. Generalized field service to all persons receiving assistance is given by provincial social workers in the territory to which each is assigned.

Under the Social Assistance Act, cities and municipalities of over 10,000 population must have their own Social Welfare Departments to administer the Social Assistance Act and to give case-work services to old age pensioners and mothers' allowance recipients. The Province pays 50 p.c. of the salaries of municipal social workers, or where more than one is needed, matches the municipal appointees, worker for worker. Smaller municipalities may either have their own Social Welfare Departments or pay the Province 15 cents per capita each year for the services of the Social Welfare Branch. There are five municipalities with only one social worker and eight with an amalgamated staff, the remainder choosing the 15 cents per capita alternative.

The Province reimburses the municipalities 80 p.c. of the cost of all forms of social assistance with the exception of Old Age Pensions, Pensions for the Blind and Mothers' Allowances to which the municipalities do not contribute. Nursing-home or boarding-home costs over and above the pension or allowance are shared on an 80-20 provincial-municipal basis.

*Child Care and Protection.*—The administration of the Protection of Children Act, the Adoption Act, the Children of Unmarried Parents Act and the placement of children in foster homes is carried on by the Child Welfare Division, except at Vancouver and Victoria where Children's Aid Societies are located. Administration of the Boys' and Girls' Industrial Schools, family case work and rehabilitative supervision of all boys and girls who have been treated at the schools is carried on in co-operation with the Juvenile Courts.

*Care of the Aged.*—The Provincial Home is operated for the care of aged men. Several cities and municipalities also operate Homes for the Aged; grants of 33 p.c. of the capital cost of construction are made by the Province.

*Social Assistance.*—The Family Division administers the Social Assistance Act which provides for the granting of social allowances to needy individuals or families, counselling services to families even if financial aid is not required, health services, occupational training or re-training, and boarding- and foster-home care.

*Special Services.*—Certain divisions of the Health Branch of the Department of Health and Welfare include social services as part of their treatment. Medical social workers, appointed by the Social Welfare Branch, serve patients of the Tuberculosis Sanatoria and Venereal Diseases Clinics and their families. Provincial institutions and hospitals also have social service programs, and case-work services are provided in the Provincial Mental Hospital and Child Guidance clinics. Infirmary applications and a hospital clearance program are carried out by the field staff under the supervision of the Inspector of Hospitals, with the advice of the Social Welfare Branch personnel.

Federal Departments use the services of the Social Welfare Branch co-operatively in connection with social investigations required in any part of the Province.

### Subsection 3.—Workmen's Compensation

In all ten provinces, legislation is in force providing for compensation for injury to a workman by accident arising out of and in the course of employment, or by a specified industrial disease. A summary of provincial legislation is given in Chapter XIX.

### Subsection 4.—Care of Dependent and Handicapped\*

Detailed statistics of charitable and benevolent institutions in Canada are made available quinquennially and, as reported for the 1941 Census, appear at pp. 677-682 of the 1943-44 Year Book. Table 10 gives figures as at June 1, 1946.

\* Prepared in the Institutions Section, Health and Welfare Division, Dominion Bureau of Statistics.

**10.—Summary Statistics of Charitable and Benevolent Institutions, by Provinces, as at June 1, 1946**

Item	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Homes for Adults—										
Institutions.....	1	18	10	42	65	8	9	6	12	171
Bed capacity.....	105	1,332	403	4,178	5,801	836	336	240	494	13,725
Personnel.....	22	184	52	1,025	854	162	72	59	92	2,522
Under care June 1, 1946.....	105	1,012	284	3,693	4,985	841	278	205	467	11,870
Homes for Adults and Children—										
Institutions.....	—	6	5	50	12	4	—	6	5	88
Bed capacity.....	—	417	482	8,096	810	259	—	734	233	11,031
Personnel.....	—	63	103	1,875	189	52	—	149	36	2,470
Under care June 1, 1946.....	—	193	427	8,086	641	194	—	672	145	10,358
Orphanages—										
Institutions.....	1	8	5	44	20	8	3	6	4	99
Bed capacity.....	100	593	446	8,718	1,378	346	319	402	367	12,669
Personnel.....	14	117	75	1,852	274	80	39	64	63	2,578
Under care June 1, 1946.....	49	460	383	8,466	1,159	272	267	364	334	11,754
Day Nurseries—										
Institutions.....	—	1	—	—	9	2	—	2	—	14
Bed capacity.....	—	—	—	—	—	—	—	—	—	—
Personnel.....	—	7	—	—	84	13	—	13	—	117
Under care June 1, 1946.....	—	15	—	—	462	106	—	—	—	583
Children's Aid Societies—										
Institutions.....	—	7	2	1	44	3	4	—	1	62
Bed capacity.....	—	—	—	—	—	—	—	—	—	—
Personnel.....	—	15	8	9	406	51	53	—	12	557
Under care June 1, 1946.....	—	860	187	—	9,833	739	248	—	187	12,054

### PART III.—NATIONAL VOLUNTARY HEALTH AND WELFARE ACTIVITIES

**Canadian Welfare Council.**—This Council, established in 1920, is a national association of over 1,200 organizations and individual citizens in partnership to secure comprehensive, well-administered social services of high quality for the Canadian people. It furnishes authoritative information, technical advice and field service in the main areas of social welfare and provides a means of co-operative planning and action, by serving as a link between the public and private agencies.

Membership is open to individuals and to associations. Among the member organizations of the Council are Community Chests and Councils, a wide variety of private social agencies, various federal, provincial and municipal departments and other groups active in the fields of health, welfare and education.

The policies and program of the Council are determined by its members with the help of a nationally representative elected board of governors. Aided by a professional staff who provide both central office and field services, the members work together in these divisions: Child Welfare, Family Welfare, Recreation, Public Welfare, Delinquency and Crime, Community Chests and Councils. In addition to the divisions, there are standing committees on research, volunteer social work, field services and personnel in social welfare. A department of French-speaking services and a department of public relations maintain liaison between the Council staff, Council members and the public.

Some subjects to which the Council has given study are the regulation of child labour, controls for juvenile immigration, Canadian adoption laws as a step towards improved adoption procedure in all provinces, needs of the aged, public assistance, residence and settlement legislation, rehabilitation of the disabled and a large number of surveys on a variety of subjects, requested by agencies, communities and provinces.

In addition to its magazine, *Canadian Welfare*, published eight times a year, the Council issues reports, pamphlets, briefs and division bulletins and an annual directory of Canadian welfare services. It organizes conferences, institutes and lectures, as well as a two to three-day annual meeting.

The Council has a broad basis of support. Its annual budget is financed by grants and assessments from Community Chests, Federal and Provincial Government grants, donations, memberships and payments for special services.

**The Canadian Red Cross Society.**—The Canadian Red Cross Society was founded in 1896 to furnish volunteer aid to the sick and wounded in time of war and to work for the improvement of health, the prevention of disease and the mitigation of suffering. The peacetime program of the Society consists of eight major services. The operation of outpost hospitals and of a blood transfusion service are important projects receiving attention within nearly all provincial divisions. Nutrition and carrying homemaker's services, and the teaching of swimming and water safety are carried on in most branch areas. In addition, relief is supplied in times of national



and international disaster; craft training and recreational centres are operated for hospitalized war veterans and a national inquiry bureau traces persons for the purpose of reuniting families and friends.

In 1947 a national blood transfusion service was initiated in British Columbia and Alberta with the aim of supplying all hospitals with free blood and plasma so that immediate transfusions may be available to patients everywhere without charge. During 1948 this service was extended to cover Nova Scotia, Prince Edward Island and part of Quebec.

Four additions during 1948 brought to a total of 75 the number of outpost hospitals and nursing stations operated by the Red Cross as a service to settlers in isolated areas.

A nutrition study designed to measure the scientific effect of supervised school lunches on the health of children was in its final phase in 1948. More than 30 branches provide homemaker service to families when the mother is ill. Loan cupboards of sick room supplies have been established in order that families with sickness in the home may borrow nursing equipment free of charge. In 1948, 290 classes provided instruction in home nursing.

Relief in time of disaster is an important branch of Red Cross work; during 1948 a \$2,500,000 rehabilitation fund for the distressed was administered. During the severe spring floods in British Columbia, Red Cross House in Vancouver served as headquarters for combined relief operations and Red Cross volunteers assisted the Armed Forces in providing aid to the homeless.

Immigrants are met by Red Cross workers at reception centres and Red Cross nurseries are operated at ports. Clothing, hospital supplies and surgical dressings, made by voluntary workers, are provided for use in Canada and for shipment overseas. The Society shipped supplies valued at more than \$2,000,000 to war-devastated countries on behalf of Red Cross and other voluntary agencies.

Hospitalized veterans participate in Red Cross arts and crafts programs under the instruction of a staff of 37 Red Cross supervisors and 125 voluntary workers. The Society also operates recreation centres and next-of-kin hostels in connection with Department of Veterans Affairs hospitals. Other services include films and entertainment, regular visits, transportation and welfare services for needy veterans and families.

In an effort to reduce Canada's annual drowning toll, swimming and water safety are taught as part of a first-aid program by some 1,000 Red Cross instructors.

The Canadian Junior Red Cross with a membership of more than 850,000 promotes health and good citizenship in 29,715 school-room branches across Canada. Since the beginning of its program, more than 30,000 handicapped children have received treatment through the Junior Red Cross Crippled Children's Fund, including 2,628 children treated in 1948.

Funds to carry on Red Cross work are voluntarily subscribed and in 1948 approximately \$4,000,000 was obtained through the annual campaign of the Society.



**The Health League of Canada.**—The Health League of Canada is a voluntary association devoted to a program of health education. Through the media of press, radio, poster, pamphlet, motion picture and the public platform, the League keeps the public informed concerning the health value of milk pasteurization, immunization procedures for preventable diseases, proper nutritional habits, sanitary work practices by public food-handlers and organized health programs for industrial workers. Particular divisions deal with these specific health problems; a social hygiene division conducts a program against the spread of venereal disease.

The League supplements its year-round program with the annual sponsoring of National Health and National Immunization Weeks. During these two weeks all branches and divisions of the League co-operate with Federal, provincial and local health authorities particularly in publicizing general health practices and immunization procedures.

Health League branches have been organized in several provinces and are particularly active in Ontario and Quebec. A Voluntary Committee on Health of the Senate and House of Commons has been organized by the Health League to disseminate information to Members of Parliament and to serve as a forum for their discussion of health matters.

**The Order of St. John.**—The Order of St. John in Canada has its headquarters and national offices at Ottawa with branches in every province, and local centres in hundreds of cities, towns and villages throughout Canada. The Order has two subsidiary branches, the St. John Ambulance Association and the St. John Ambulance Brigade, the first devoted to teaching, the second to rendering voluntary public assistance as required. The primary purpose of the Order is to teach first-aid, home nursing, child welfare, sanitation, hygiene and kindred subjects to citizens of Canada irrespective of age, race and creed, and to provide trained and organized personnel to help in time of disaster or national emergency.

The Canadian branch was organized in 1895 and since that time more than one and a quarter million persons have been trained and have passed examinations in the various subjects. Uniformed members of the Order are to be found ready to render assistance at large gatherings such as exhibitions. During the winter season members are in attendance on many ski-runs to provide first-aid to the injured.

A blood grouping program was started early in 1943 in order that compatible donors may be obtained in emergencies with the least possible delay. Since the inception of the program upwards of 175,000 persons have been classified by blood-group.

**The Victorian Order of Nurses for Canada.**—The Victorian Order of Nurses is a voluntary public health agency, national in scope and having as its primary object the care of the sick in their own homes by visiting nurses. The Order provides a community service available to everyone in the area served. Care is given under medical direction by visiting nurses to medical, surgical and maternity patients, a large percentage of whom would otherwise be without skilled nursing care.

Part-time nursing service is given industrial plants where the number of employees does not warrant full-time employment of a nurse. In smaller centres where the Victorian Order provides the only public health nurse, the program of work is usually enlarged to include school nursing, assistance at immunization clinics and child health centres and other public health services.

Patients are expected to pay the cost of the home visits, but fees are scaled according to family income and service is never refused because of inability to pay. Visits during 1948 numbered 925,592, of which 55 p.c. were free; 20 p.c. were paid; 15 p.c. were paid in part, and 10 p.c. were paid by insurance companies for care to patients. The cost of the service to those unable to pay is provided for by municipal grants or funds collected by means of campaigns.

In 1948 there were 105 branches of the Order distributed as follows: Nova Scotia 16; New Brunswick 8; Quebec 6; Ontario 60; Manitoba 1; Saskatchewan 3; Alberta 3; and British Columbia 8. Nursing care integrated with health teaching was given by approximately 489 nurses to 129,237 patients.

**Canadian Conference of National Voluntary Health and Welfare Organization.**—This organization was set up on an experimental basis in April, 1949, following a two-year series of informal meetings of executives of national voluntary agencies who met to explore the need and possibility of co-operation in matters of common concern. The Conference provides national health and welfare agencies with a clearing house and a medium for joint study and action on common problems.

**Canadian Committee of Youth Services.**—This Committee was established in June, 1949, for the purpose of providing a medium for joint planning and action on the part of Canadian organizations concerned with youth welfare.

# CHAPTER VIII.—CRIME AND DELINQUENCY\*

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

**Canadian Criminal Law and Procedure.**—A review of the development of the Criminal Code in Canada is given at pp. 1085-1087 of the 1934-35 edition of the Year Book; it includes a résumé of procedure and an account of the jurisdiction of the various classes of judges and magistrates. A description of the Federal and Provincial Courts is given at pp. 107-115 of this edition.

The statistics presented in this Chapter are summarized from the "Annual Report of Statistics of Criminal and Other Offences," and are collected directly from the criminal courts in the different judicial districts throughout Canada. There are 150 judicial districts, divided by provinces as follows: Prince Edward Island 3, Nova Scotia 7, New Brunswick 15, Quebec 28, Ontario 48, Manitoba 6, Saskatchewan 21, Alberta 12, British Columbia 8, Yukon 1, and the Northwest Territories 1.

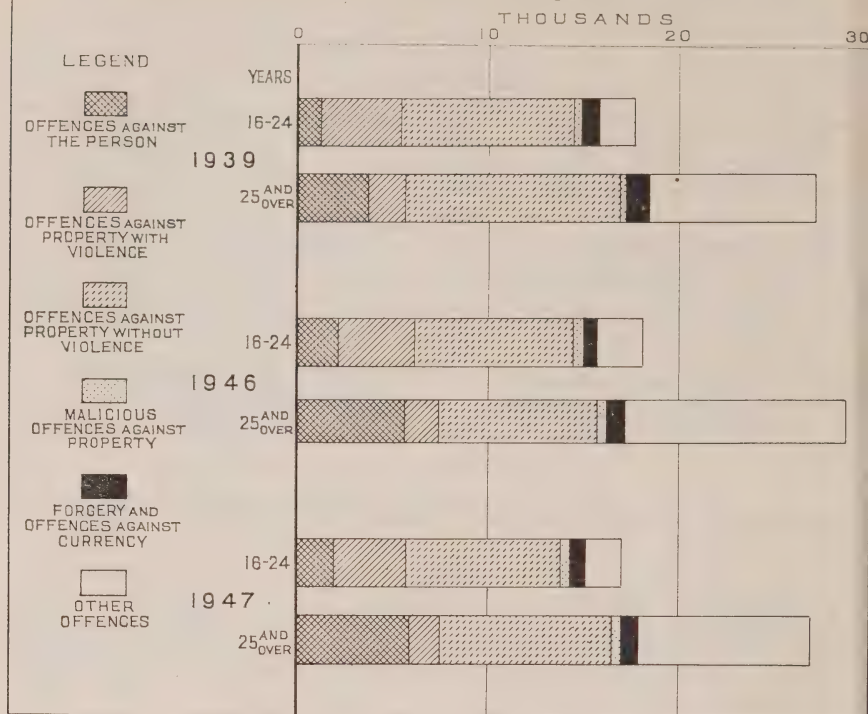
Crime is divided into two definite classes, criminal or 'indictable' offences, which include all serious crimes covered by the Criminal Code (see pp. 296-302), and summary or 'non-indictable' offences, which comprise less serious crimes and breaches of municipal by-laws (see pp. 302-306).

Indictable offences are so designated in the statutes creating them and providing for their punishment. They include all offences that are not punishable by way of summary conviction. A limited few of such offences are triable by Magistrates without the consent of the accused, by virtue of Part XVI of the Criminal Code of Canada relating to the summary trial of indictable offences. The great majority, however, are triable only in the Superior Court of the province with a jury or, by consent of the accused, under Part XVIII of the Criminal Code relating to the speedy trial of indictable offences or by a Magistrate under Part XVI aforesaid.

\* Except as otherwise stated this Chapter has been revised in the Judicial Section, Health and Welfare Division, Dominion Bureau of Statistics. The 72nd "Annual Report of Statistics of Criminal and Other Offences", for the year ended Sept. 30, 1947, is obtainable from the Dominion Bureau of Statistics, Price 50 cents.

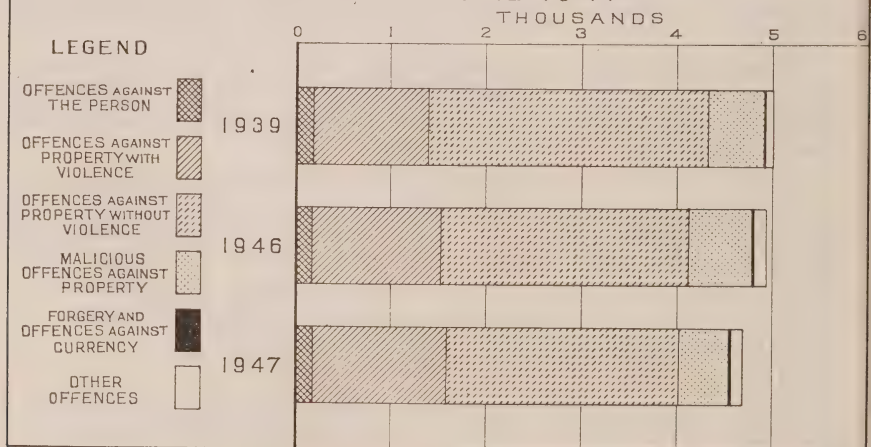
# CONVICTIONS FOR INDICTABLE OFFENCES, BY CLASSES

1939, 1946 AND 1947



# CONVICTIONS OF JUVENILES FOR MAJOR OFFENCES, BY CLASSES

1939, 1946 AND 1947





Non-indictable offences include all offences that are not expressly made indictable. This includes all provincial offences, examples of which are violations of traffic laws and municipal by-laws. Non-indictable offences are triable by Magistrates and Justices of the Peace under Part XV of the Criminal Code or under the Provincial Summary Conviction Acts as the case may be.

## PART I.—ADULT OFFENDERS

### Section 1.—Total Offences

The total number of adult offences in 1947 was greater than in the previous year but it should be noted that the most serious charges before the courts have decreased. The summary convictions have over-balanced an apparent gain in the number of indictable offences and increased the total figure over that of 1946 by 12.7 p.c.

In 1947, 803,139 charges against offenders were dealt with by the courts as compared with 713,631 charges in 1946. Charges for indictable offences numbered 50,681 as against 53,959 of the previous year. Charges for non-indictable offences amounted to 752,458; in 1946 these numbered 659,672.

Convictions for indictable offences totalled 44,056 in 1947 a decrease from 1946 of 6.1 p.c.

Non-indictable convictions in 1947 rose to 752,458, an increase of 14.1 p.c. over those reported in 1946. This increase was spread over all the provinces except Nova Scotia.

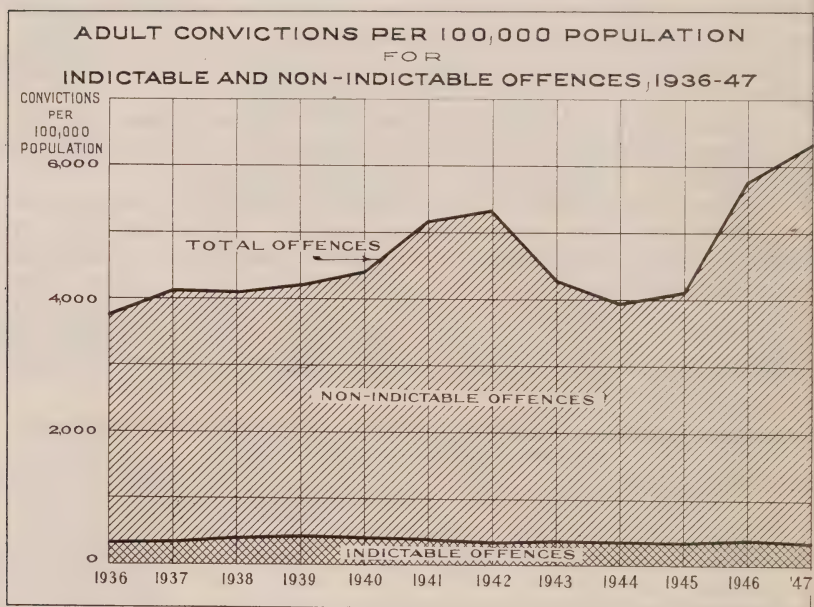
Ontario led the provinces in total convictions per 100,000 estimated population during 1947 with a ratio of 10,205 against a ratio of 9,157 in 1946. The other provinces in order were as follows with the ratio for 1946 shown in parentheses:—Manitoba 6,726 (5,344); Quebec 5,283 (5,112); British Columbia 4,761 (3,601); Yukon and the Northwest Territories 3,371 (2,525); Prince Edward Island 3,173 (3,229); New Brunswick 3,170 (3,212); Alberta 2,743 (2,468); Nova Scotia 2,232 (2,480); Saskatchewan 2,071 (1,979). This last province has held the most favourable position since 1943.

#### 1.—Total Convictions of Adults, Classified by Indictable and Non-Indictable Offences, Years Ended Sept. 30, 1944-47

Class of Offence	TOTAL NUMBER OF CONVICTIONS							
	1944		1945		1946		1947	
	M.	F.	M.	F.	M.	F.	M.	F.
Indictable offences.....	38,407	4,104	38,690	3,275	43,771	3,168	41,003	3,053
Non-indictable offences....	410,285	20,442	432,595	23,323	625,867	33,805	717,950	34,508
<b>Totals.....</b>	<b>448,692</b>	<b>24,546</b>	<b>471,285</b>	<b>26,598</b>	<b>669,638</b>	<b>36,973</b>	<b>758,953</b>	<b>37,561</b>
	CONVICTIONS PER 100,000 POPULATION 16 YEARS OF AGE OR OVER							
	1944		1945		1946		1947	
	M.	F.	M.	F.	M.	F.	M.	F.
Indictable offences.....	885	100	886	78	992	75	915	71
Non-indictable offences....	9,450	497	9,904	557	14,991	797	16,014	798
<b>Totals.....</b>	<b>10,335</b>	<b>597</b>	<b>10,790</b>	<b>635</b>	<b>15,983</b>	<b>872</b>	<b>16,929</b>	<b>869</b>

The text on p. 295 is published so that comparisons with Year Book figures of other years may be made. However, a fairer picture is obtained, as shown in Table 1, by calculating the ratio of total convictions to the estimated population of 16 years or over, the ages of adult offenders. Although this raises the figure in each case, it does very little to change the alignment of the provinces according to the number of convictions to the estimated population of 16 years or over per 100,000. The rates would then be as follows: Ontario 13,878, Manitoba 9,375, Quebec 7,991, British Columbia 6,355, New Brunswick 4,858, Prince Edward Island 4,690, Alberta 3,974, Nova Scotia 3,269, and Saskatchewan 2,988.

If, however, only the ratio of indictable offences to the estimated population of 16 years or over were taken into account the order of the provinces would be changed considerably with Alberta having the largest ratio of serious crimes, Saskatchewan moving from the bottom to the seventh place, Quebec dropping from third to eighth place and Prince Edward Island having the lowest proportion.



### Subsection 1.—Indictable Offences

The main interest in criminal statistics is concerned chiefly with the more serious offences. While such offences are by far the least numerous, nevertheless, from the standpoint of protection of the person and of property, they are the most important.

In 1938 the total number of convictions for indictable crimes was 43,599; in 1947 it had increased to 44,056, only 1 p.c. The increase in the estimated population of 16 years or over during the same period was 14.1 p.c.

The number of indictable crimes decreased in all provinces in 1947 except Alberta, British Columbia and in Yukon and the Northwest Territories.

### —Convictions for Indictable Offences, by Provinces, Years Ended Sept. 30, 1938-47

NOTE.—Figures for 1900-20 are given at p. 1016 of the 1933 Year Book, for 1921-30 at p. 908 of the 1942 edition and for 1931-37 at p. 1108 of the 1946 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1938....	225	1,269	912	10,277	17,248	3,041	2,555	3,619	4,443	7	3	43,599
1939....	268	1,635	1,107	10,804	19,804	3,220	3,450	4,087	3,701	7	24	48,107
1940....	251	1,573	1,131	12,152	17,558	3,353	2,886	4,411	3,392	3	13	46,723
1941....	207	1,675	1,185	11,514	15,861	2,811	3,106	3,263	2,996	6	22	42,646
1942....	205	1,646	1,063	10,269	15,070	2,419	2,621	3,193	2,792	5	26	39,309
1943....	174	1,725	1,211	11,669	16,779	2,060	2,213	2,787	3,092	22	20	41,752
1944....	262	1,782	1,310	10,386	17,613	2,420	2,074	3,164	3,418	71	11	42,511
1945....	231	2,116	1,248	9,592	17,287	2,517	2,204	3,201	3,480	84	5	41,965
1946....	320	2,261	1,492	8,578	21,379	2,834	2,503	3,526	3,916	81	49	46,939
1947....	177	1,843	1,468	7,279	20,178	2,808	2,172	3,850	4,125	102	54	44,056

**Analyses of Convictions for Indictable Offences.**—In three of the six classes (Class I, III, V) into which indictable crimes are divided for statistical purposes, as shown in Table 3, an increase was shown in 1947.

The increase in Class I, crimes against the person, is discounted by the fact that the crimes of intimidation, and sodomy and bestiality, previously listed in Class VI, were placed in this class in 1947.

In Class III, which includes crimes against property without violence, fewer thefts of automobiles accounted for a decrease in the total number of thefts. The number of convictions for false pretences was influenced by multiple convictions. A total of 1,261 offenders were convicted of false pretences. Of this number, 401 had four or more convictions against them for this crime. The figures in Class V are always somewhat misleading as forgery and uttering are, like false pretences, crimes that may be committed several times before the person is detected. For example, 708 persons committed 1,772 forgeries. Of this number, 331 persons had three or more convictions against them.

A decrease of 11.2 p.c. was reported in cases (Class IV) of violent and malicious crimes against property; and a decrease was also shown in all but one of the crimes in Class VI. Offences under the Opium and Narcotic Drug Act shown in this class, have increased in number since 1943 when there were 143 convictions to 247 convictions in 1946 and 341 convictions (266 males and 75 females) in 1947. The Chinese, contrary to common belief, form a very small proportion of those convicted of violations of this Act. Only 5.2 p.c. convictions were against persons of Asiatic birth while 79.8 p.c. were against Canadian born persons. Ontario and British Columbia showed a preponderance of convictions with 48.4 p.c. and 31.1 p.c., respectively. Over two-thirds in each case occurred in the two large centres of Toronto and Vancouver.



### 3.—Convictions for Indictable Offences, by Classes, Years Ended Sept. 30, 1946 and 1947

Class and Offence	1946		1947		Increase or Decrease in Con- victions
	Charges	Con- victions	Charges	Con- victions	
	No.	No.	No.	No.	p.c.
<b>Class I.—Offences Against the Person—</b>					
Abduction.....	44	20	18	10	-50.0
Assault, common and aggravated.....	7,409	5,998	6,713	5,462	-8.9
Offences against females <sup>1</sup> .....	1,348	1,005	1,356	966	-3.9
Manslaughter and murder.....	201	87	184	73	-16.1
Attempted murder; shooting and wounding.....	184	138	148	93	-32.6
Non-support, desertion.....	514	368	997	841	+128.5
Other offences against the person.....	207	168	602	480	+185.7
<b>Totals, Class I.....</b>	<b>9,907</b>	<b>7,784</b>	<b>10,018</b>	<b>7,925</b>	<b>+1.8</b>
<b>Class II.—Offences Against Property With Violence—</b>					
Burglary and robbery.....	6,639	5,783	6,022	5,304	-8.3
<b>Totals, Class II.....</b>	<b>6,639</b>	<b>5,783</b>	<b>6,022</b>	<b>5,304</b>	<b>-8.3</b>
<b>Class III.—Offences Against Property Without Violence—</b>					
Fraud, embezzlement and false pretences.....	3,032	2,798	3,829	3,561	+27.3
Receiving stolen goods.....	1,797	1,266	1,858	1,378	+8.8
Theft.....	14,361	12,522	13,778	12,172	-2.8
<b>Totals, Class III.....</b>	<b>19,190</b>	<b>16,586</b>	<b>19,465</b>	<b>17,111</b>	<b>+3.2</b>
<b>Class IV.—Malicious Offences Against Property—</b>					
Arson.....	121	101	68	45	-55.4
Malicious damage to property.....	1,304	1,066	1,171	991	-7.0
<b>Totals, Class IV.....</b>	<b>1,425</b>	<b>1,167</b>	<b>1,239</b>	<b>1,036</b>	<b>-11.2</b>
<b>Class V.—Forgery and Other Offences Against the Currency—</b>					
Offences against currency.....	6	6	8	8	+33.3
Forgery and uttering forged documents.....	1,643	1,601	1,811	1,772	+10.7
<b>Totals, Class V.....</b>	<b>1,649</b>	<b>1,607</b>	<b>1,819</b>	<b>1,780</b>	<b>+10.8</b>
<b>Class VI.—Other Offences not included in the foregoing classes—</b>					
Dangerous or reckless driving.....	3,207	2,974	2,436	2,066	-30.5
Defence of Canada Regulations.....	89	82	—	—	—
Driving car while drunk.....	2,113	1,898	2,091	1,825	-3.8
Opium and Narcotic Drug Act, offences against.....	303	247	400	341	+38.1
Gambling and lotteries.....	1,423	1,378	1,141	1,081	-21.6
Keeping bawdy houses and inmates.....	608	588	432	396	-32.7
Various.....	7,406	6,845	5,618	5,191	-24.2
<b>Totals, Class VI.....</b>	<b>15,149</b>	<b>14,012</b>	<b>12,118</b>	<b>10,900</b>	<b>-22.2</b>
<b>Grand Totals.....</b>	<b>53,959</b>	<b>46,939</b>	<b>50,681</b>	<b>44,056</b>	<b>-6.1</b>

<sup>1</sup> Offences against females include the following crimes; abortion, assault against females, assault against wife, indecent assault, carnal knowledge, incest, procuration, rape, attempted rape, seduction and wife desertion.

**Analyses of Convictions for Indictable Offences.**—Table 4 shows that at least 75.9 p.c. of persons convicted of indictable crimes in 1947 had not gone beyond elementary school grades in their education; that over one-half (52.2 p.c.) of the



crimes were committed by persons between 21 and 40 years of age and 18.6 p.c. by persons over that age; that 81.5 p.c. of those convicted were dwellers in urban districts; and that at least 84.0 p.c. were born in Canada.

#### 4.—Convictions for Indictable Offences, Classified by Occupation, Marital Status, Birthplace, Religion, etc., of Person Convicted, Years Ended Sept. 30, 1946 and 1947.

NOTE.—Figures for earlier years will be found in the corresponding tables of previous Year Books.

Item	1946	1947	Item	1946	1947
	No.	No.		No.	No.
Type of Occupation— <sup>1</sup>			Educational Status—		
Agriculture.....	2,668	2,227	Unable to read or write.....	768	958
Armed Services.....	1,368	334	Elementary.....	35,278	32,472
Clerical.....	1,068	1,245	High school.....	5,534	7,015
Commercial.....	3,952	3,917	Superior.....	408	415
Construction.....	2,324	2,341	Not given.....	4,951	3,196
Finance and insurance.....	40	36	Age—		
Fishing and trapping.....	343	355	16 years and under 21.....	10,979	9,498
Labour.....	17,070	17,056	21 years and under 40.....	22,113	22,989
Logging and lumbering.....	424	754	40 years or over.....	8,159	8,210
Manufacturing.....	2,636	3,019	Not given.....	5,688	3,359
Mining and quarrying.....	592	632	Birthplace—		
Service—			Asia.....	219	257
Domestic.....	1,841	1,915	British Isles and possessions.....	1,632	1,630
Personal.....	1,406	1,450	Canada.....	37,427	36,979
Professional.....	263	304	Europe.....	2,322	2,099
Public.....	123	140	United States.....	700	747
Recreational.....	125	161	Other foreign countries.....	21	16
Student.....	911	754	Not given.....	4,618	2,328
Transportation and communica- tions.....	2,919	3,320	Religion—		
Unemployed and retired.....	1,771	1,333	Anglican.....	4,763	4,980
Not given.....	5,095	2,763	Baptist.....	878	887
<b>Totals.....</b>	<b>46,939</b>	<b>44,056</b>	Greek Orthodox.....	846	716
			Jewish.....	792	784
Sex—			Lutheran.....	779	763
Males.....	43,771	41,003	Presbyterian.....	1,922	1,996
Females.....	3,168	3,053	Protestant.....	5,766	5,996
Marital Status—			Roman Catholic.....	19,733	18,690
Single.....	23,521	22,579	United Church.....	5,079	5,149
Married.....	17,417	17,794	Other denominations.....	734	620
Widowed.....	471	490	No religion.....	233	234
Divorced.....	74	75	Not given.....	5,414	3,241
Not given.....	5,456	3,118	Residence—		
			Urban centres.....	38,306	35,901
			Rural districts.....	8,633	8,155

<sup>1</sup> Occupations are classified to comply with the census grouping of occupations. To compare with previous Year Book tables: 'commercial' is used in the same sense as 'trade'; manufacturing and construction are separated and electric light and power added to the latter; laundry and cleaning are included in personal service.

**Convictions of Females.**—Although total convictions against men have increased considerably since 1943, those against women have dropped to 3,053, less than one-half of the 1943 figure. Decreases were shown in all provinces except Ontario, Manitoba and Alberta in 1947.

**5.—Convictions of Females for Indictable Offences, by Provinces, Years Ended  
Sept. 30, 1943-47**

Province or Territory	Numbers of Convictions					Percentages of Females Convicted to Total Convictions				
	1943	1944	1945	1946	1947	1943	1944	1945	1946	1947
Prince Edward Island.....	15	20	12	6	1	8.6	7.6	5.2	1.9	0.6
Nova Scotia.....	100	94	89	69	61	5.8	5.3	4.2	3.1	3.3
New Brunswick.....	83	126	75	70	67	6.9	9.6	6.0	4.7	4.6
Quebec.....	3,422	1,574	783	620	433	29.4	15.2	8.2	7.2	5.9
Ontario.....	1,463	1,251	1,296	1,388	1,481	8.7	7.1	7.5	6.5	7.3
Manitoba.....	246	241	199	241	294	11.9	10.2	7.9	8.5	10.5
Saskatchewan.....	188	166	168	180	152	8.5	8.0	7.6	7.2	7.0
Alberta.....	253	258	281	229	246	9.1	8.2	8.8	6.5	6.4
British Columbia.....	361	372	369	353	314	11.7	10.9	10.6	9.0	7.6
Yukon and N.W.T.....	1	2	3	12	4	2.4	2.4	3.4	9.2	2.6
<b>Canada.....</b>	<b>6,132</b>	<b>4,104</b>	<b>3,275</b>	<b>3,168</b>	<b>3,053</b>	<b>14.7</b>	<b>9.7</b>	<b>7.8</b>	<b>6.8</b>	<b>6.9</b>

**Multiple Convictions.**—The total number of convictions for any one year must not be confused with the total number of persons convicted for the same period since persons tried for indictable offences are, in many cases, convicted for more than one offence at the same trial. The trend of such multiple convictions is of value to students of sociology. They occur more often in cases of forgery and uttering, false pretences and fraud, theft and receiving stolen goods, burglary and offences against the Wartime Prices and Trade Board Act.

**6.—Persons Convicted of More than One Offence at the Time of Trial compared  
with Persons Convicted of One Offence, Years Ended Sept. 30, 1943-47**

Item	1943	1944	1945	1946	1947
	No.	No.	No.	No.	No.
Persons Convicted of—					
2 offences.....	2,330	2,248	2,155	2,387	2,364
3 ".....	590	617	597	627	646
4 ".....	249	261	293	304	308
5 ".....	132	134	136	129	157
6 ".....	101	103	112	111	111
7 ".....	36	55	60	68	46
8 ".....	37	50	33	51	47
9 ".....	19	22	34	34	41
10 ".....	16	20	17	17	26
11 to 20 offences.....	60	47	50	73	83
21 offences or over.....	11	11	11	16	33
Totals, Convicted of More than One Offence...	3,581	3,568	3,498	3,817	3,862
Totals, Convicted of One Offence.....	31,019	31,716	31,097	34,886	31,271
<b>Grand Totals.....</b>	<b>34,600</b>	<b>35,284</b>	<b>34,595</b>	<b>38,703</b>	<b>35,133</b>

**Acquittals in Relation to Convictions and Recidivism.**—The ratio of acquittals to convictions for indictable offences for the period 1943-47 averaged 13.1 p.c. The percentage varies greatly as between the provinces. In 1947, Ontario showed the highest percentage of acquittals with Quebec second and Nova Scotia third; Yukon and the Northwest Territories had the lowest percentage—only 2.5 p.c.

The ratio of repeaters was slightly higher in 1947 than it has been for the last five years when it was, approximately, one in every three convicted persons. In these statistics, a person is considered a second offender, or repeater, if convicted of two crimes or more, even though there may be only one court hearing. This tends to exaggerate the problem of recidivism, and it should be recognized that the number of convictions is affected by multiple convictions.

### 7.—Charges, Acquittals and Convictions Respecting Indictable Offences, Years Ended Sept. 30, 1943-47

Item	1943	1944	1945	1946	1947
	No.	No.	No.	No.	No.
Charges.....	47,420	48,624	48,263	53,959	50,681
Acquittals.....	5,633	6,072	6,257	6,983	6,578
Persons detained for insanity.....	35	41	41	37	47
Convictions.....	41,752	42,511	41,965	46,939	44,056
Males.....	35,620	38,407	38,690	43,771	41,003
Females.....	6,132	4,104	3,275	3,168	3,053
First convictions.....	27,716	29,016	28,832	31,708	28,329
Second convictions.....	4,173	4,437	4,322	4,854	4,908
Reiterated convictions.....	9,863	9,058	8,811	10,377	10,819

### 8.—Charges, Convictions and Percentages of Acquittals Respecting Indictable Offences, by Provinces, Years Ended Sept. 30, 1946 and 1947

Province or Territory	1946			1947		
	Charges	Convictions	Acquittals	Charges	Convictions	Acquittals
	No.	No.	p.c.	No.	No.	p.c.
Prince Edward Island.....	341	320	6.2	186	177	4.8
Nova Scotia.....	2,510	2,261	9.9	2,135	1,843	13.7
New Brunswick.....	1,578	1,492	5.4	1,554	1,468	5.5
Quebec.....	9,850	8,578	12.9	8,448	7,279	13.8
Ontario.....	25,485	21,379	16.1	24,125	20,178	16.4
Manitoba.....	3,086	2,834	8.2	3,023	2,808	7.1
Saskatchewan.....	2,649	2,503	5.5	2,326	2,172	6.6
Alberta.....	3,907	3,526	9.8	4,089	3,850	5.8
British Columbia.....	4,421	3,916	11.4	4,635	4,125	11.0
Yukon and N.W.T.....	132	130	1.5	160	156	2.5
<b>Canada.....</b>	<b>53,959</b>	<b>46,939</b>	<b>13.0</b>	<b>50,681</b>	<b>44,056</b>	<b>13.1</b>

**Sentences.**—The proportions that the different types of sentences bear to the total number of convictions remained relatively the same over the five-year period 1943-47. In 1947 fewer fines were imposed than in 1946. This resulted in proportionally more suspended sentences and gaol sentences. Death sentences dropped from 32 to 18, the latter being close to the average figure for the ten-year period 1938 to 1947.

### 9.—Sentences for Indictable Offences, Years Ended Sept. 30, 1943-47

Sentence	1943	1944	1945	1946	1947
	No.	No.	No.	No.	No.
Option of fine.....	17,789	17,367	16,900	18,789	15,077
Gaol—					
Under one year.....	10,735	11,134	11,189	12,747	13,004
One year or over.....	1,587	1,569	1,664	1,976	2,157
Reformatory.....	2,614	3,038	2,912	3,138	3,349
Penitentiary—					
Two years and under five.....	2,532	2,594	2,389	2,874	2,763
Five years or over.....	356	426	559	708	417
Life.....	3	6	2	8	5
Death.....	9	14	17	32	18
Suspended sentence or other disposition.....	6,127	6,363	6,333	6,667	7,266
<b>Totals.....</b>	<b>41,752</b>	<b>42,511</b>	<b>41,965</b>	<b>46,939</b>	<b>44,056</b>

## 10.—Sentences for Indictable Offences, by Provinces, 1947

Sentence	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Option of fine.....	65	698	492	2,508	6,502	856	870	1,408	1,619	59	15,077
Gaol—											
Under one year....	85	586	529	2,628	5,048	753	718	1,424	1,162	71	13,004
One year or over..	—	41	9	583	434	295	200	326	259	10	2,157
Reformatory.....	1	5	15	76	3,017	62	8	1	162	2	3,349
Penitentiary—											
Two years and											
under five.....	8	204	143	622	910	156	198	250	266	6	2,763
Five years or over.	3	5	10	171	96	25	9	20	78	—	417
Life.....	—	—	—	2	2	—	—	—	1	—	5
Death.....	—	—	1	4	5	3	—	1	4	—	18
Suspended sentence or other disposition	15	304	269	685	4,164	658	169	420	574	8	7,266
<b>Totals.....</b>	<b>177</b>	<b>1,843</b>	<b>1,468</b>	<b>7,279</b>	<b>20,178</b>	<b>2,808</b>	<b>2,172</b>	<b>3,850</b>	<b>4,125</b>	<b>156</b>	<b>44,056</b>

## Subsection 2.—Non-Indictable Offences

The following statistics relate to non-indictable offences of adults disposed of by Police Magistrates or other Justices of the Peace, under authority of the Summary Convictions Act. Such convictions showed an increase of 14.1 p.c. in 1947 as compared with 1946, an all-time peak. Increases were general in all provinces except Nova Scotia.

## 11.—Convictions of Adults for Non-Indictable Offences, by Provinces, Years Ended Sept. 30, 1938-47

NOTE.—Figures for 1900-12 are given at p. 1020 of the 1933 Year Book, for 1913-30 at p. 913 of the 1942 edition and for 1931-37 at p. 1113 of the 1946 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1938..	1,497	6,552	5,299	89,443	238,224	32,748	7,113	10,973	22,695	60	60	414,664
1939..	1,293	7,503	5,095	91,607	247,609	31,467	8,147	13,816	21,881	89	101	428,608
1940..	1,237	9,138	6,213	93,965	267,166	31,018	9,276	14,702	23,190	98	106	456,109
1941..	1,664	10,254	7,703	152,330	288,874	32,481	10,499	15,434	28,096	80	141	547,556
1942..	1,521	10,386	8,170	195,672	285,240	32,209	8,541	14,543	24,905	86	91	581,364
1943..	1,033	8,857	7,619	181,425	204,227	21,986	7,810	11,598	20,510	145	105	465,315
1944..	1,287	8,760	9,533	146,593	199,938	22,602	7,788	11,950	21,866	336	74	430,727
1945..	1,394	9,786	9,818	158,580	209,713	22,820	8,996	11,576	22,887	312	36	455,918
1946..	2,715	12,915	13,925	176,996	354,154	36,014	13,985	16,289	32,203	234	242	659,672
1947..	2,806	12,019	14,097	188,835	407,334	47,170	15,263	18,696	45,585	328	325	752,458

**Analyses of Convictions for Non-Indictable Offences.**—It should be remembered that, while the Criminal Code undergoes little change over a period of time, the figures for summary convictions are greatly influenced by the customs of the people and show a tendency to fluctuate as municipal regulations are strictly enforced or allowed to lapse.

Table 12 shows an appreciable decrease in certain non-indictable offences, for example: gambling decreased by 36.8 p.c., frequenting bawdy houses by 36.9 p.c., vagrancy, including loose, idle and disorderly conduct, by 27.6 p.c.



In spite of these and other reductions, the total number of non-indictable offences in 1947 increased by 14.0 p.c. over those of 1946. Offences which showed a marked increase were:—offences against game and fishery Acts; breaches of traffic regulations; infractions of revenue laws; possessing a radio without a licence; and infractions of various municipal by-laws.

**12.—Convictions for Non-Indictable Offences, by Types, Years Ended Sept. 30, 1943-47**

Offence	1943	1944	1945	1946	1947	Increase or Decrease 1946-47
	No.	No.	No.	No.	No.	No.
Assault.....	3,148	3,248	3,887	4,640	4,543	-97
Fishery and Game Acts, offences against	2,219	2,485	2,297	3,597	4,423	+826
Gambling Acts, offences against.....	19,996	16,283	16,626	8,254	5,215	-3,039
Liquor, prohibition and temperance Acts, offences against.....	15,099	17,093	22,237	33,362	28,486	-4,876
Master and Servant Act, offences against	186	175	126	484	680	+196
Breaches of traffic regulations.....	274,573	270,021	286,825	453,630	537,519	+83,889
Breaches of by-laws.....	37,601	27,114	26,209	29,206	34,354	+5,148
Non-support of family and neglecting children.....	2,099	2,442	3,148	3,359	2,928	-431
Contributing to delinquency of children..	902	1,006	1,095	1,085	1,212	+127
Revenue laws, offences against.....	1,749	1,058	1,656	2,179	2,430	+251
Vagrancy.....	9,289	9,200	7,679	15,212	11,694	-3,518
Drunkenness.....	42,292	41,521	46,745	64,076	70,868	+6,792
Frequenting bawdy houses.....	852	634	802	591	373	-218
Loose, idle, disorderly conduct, and disturbing the peace.....	5,536	7,082	9,161	9,136	8,648	-488
Radios without licences.....	34,434	7,194	7,534	10,867	12,477	+1,610
Various other offences.....	15,340	24,171	19,891	19,994	26,603	+6,614
<b>Totals.....</b>	<b>465,315</b>	<b>430,727</b>	<b>455,918</b>	<b>659,672</b>	<b>752,458</b>	<b>+92,786</b>

*Convictions for Drunkenness.*—Convictions for drunkenness and for offences against the Liquor Control Act in 1947 are both out of line with the figures for these offences in previous years. The former showed an increase of 6,792 convictions and the latter a decrease of 4,876. This may be due to a change in the method of compilation instituted in 1947. Heretofore, the compilation of the non-indictable offences was done at the Dominion Bureau of Statistics; now the compilation is done by local court officials and consists of the total number of convictions for each offence tabulated by the disposition of the case. This procedure gives a truer picture than has been attained before. Offences recorded against the Liquor Control Act include such infractions as the unlawful possession or the unlawful sale of liquor but exclude cases of drunkenness, a distinction that can be made more accurately by the local court officials.

To bear out this assumption it is noted that in New Brunswick, Manitoba, Saskatchewan and the Northwest Territories the figures for drunkenness were lower than in the previous year while in the same provinces the number of offences against the Liquor Control Act were higher.

Conversely in Nova Scotia, Quebec, Ontario, British Columbia and Yukon, the figures for drunkenness increased, while convictions for offences against the Liquor Control Act decreased. Only in Prince Edward Island were both figures lower and only in Alberta were both higher.

**13.—Convictions for Drunkenness, by Provinces, Years Ended Sept. 30, 1938-47**

NOTE.—Figures for 1900-10 are given at p. 1021 of the 1933 Year Book, for 1911-30 at p. 914 of the 1st edition, for 1931-36, at p. 1114 of the 1946 edition and for 1937 at p. 283 of the 1948-49 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1938.....	595	2,628	2,730	7,220	17,585	1,286	848	922	3,053	17	10	36,411
1939.....	546	2,463	2,179	6,427	18,120	985	895	1,130	3,226	23	13	36,411
1940.....	467	3,607	2,515	6,986	17,823	1,527	580	1,271	3,604	21	25	37,711
1941.....	539	3,654	3,332	8,292	17,831	1,472	591	1,353	2,871	23	44	40,111
1942.....	606	4,387	4,217	10,400	17,622	1,580	570	1,393	3,964	43	19	44,111
1943.....	332	2,380	3,489	10,363	17,482	1,885	778	1,462	4,055	51	15	42,111
1944.....	395	2,068	4,292	8,843	17,258	1,451	864	1,539	4,744	54	13	41,111
1945.....	612	3,064	4,158	10,336	19,573	2,040	1,010	1,515	4,342	85	10	46,111
1946.....	1,478	4,754	7,754	7,167	29,698	2,685	1,847	2,596	5,974	85	38	64,111
1947 <sup>1</sup> ....	1,187	4,907	6,584	11,006	31,218	2,510	1,802	2,632	8,801	184	37	70,111

<sup>1</sup> Figures below the ruled line are not comparable with those above and were compiled by local officials—see text at p. 303.

Alcoholic liquors were generally sold under specified conditions by licensed hotels or licensed shops until the First World War. During that War prohibition was established generally but, in more recent years, the Provincial Governments have taken over the sale of liquors through liquor commissions. Prince Edward Island was the last of the provinces to give up prohibition on July 6, 1948.

**14.—Convictions for Offences Against the Liquor Acts, by Provinces, Years Ended Sept. 30, 1938-47**

NOTE.—Figures for 1900-20 are given at p. 1022 of the 1933 Year Book, for 1921-30 at p. 915 of the 1st edition, for 1931-36, at p. 1114 of the 1946 edition and for 1937 at p. 283 of the 1948-49 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1938.....	333	794	487	1,837	5,873	886	606	810	793	16	7	12,111
1939.....	230	1,181	619	2,423	5,144	1,052	593	913	1,307	24	27	13,111
1940.....	215	1,149	379	2,102	5,372	997	927	831	903	37	34	12,111
1941.....	250	1,273	431	3,206	6,346	624	894	1,298	994	25	28	15,111
1942.....	183	1,323	477	3,037	6,901	1,130	982	1,294	1,508	24	34	16,111
1943.....	118	1,369	473	2,070	6,751	1,086	1,099	1,106	944	47	36	15,111
1944.....	56	2,240	814	1,287	8,332	1,057	1,010	1,108	1,047	119	23	17,111
1945.....	155	2,324	911	2,626	10,655	1,429	1,416	1,454	1,215	39	13	22,111
1946.....	374	3,436	1,411	2,274	15,779	2,059	2,697	2,514	2,615	57	146	33,111
1947.....	354	2,503	1,742	1,494	12,889	2,229	2,712	2,623	1,741	46	153	28,111

*Breaches of Traffic Regulations.*—At the beginning of the present century, when the motor-car was scarcely known and to-day's speeds even for freight movements were unheard of, convictions for breaches of traffic regulations numbered only 1 for all Canada. A strong influence in reducing convictions under breaches of traffic regulations in 1943, 1944 and 1945 was the removal, owing to wartime restrictions, of a large number of private and passenger vehicles from the highways. The lifting of these restrictions resulted in a record number of convictions in 1946 and again in 1947. Such convictions accounted for 71.4 p.c. of all non-indictable offences in the latter year.

**15.—Convictions for Breaches of Traffic Regulations, by Provinces,  
Years Ended Sept. 30, 1938-47**

NOTE.—In 1938 and later years dangerous and reckless driving was classified as an indictable offence, as was leaving the scene of an accident from 1939 onwards. Figures for 1900-20 are given at p. 1023 of the 1933 Year Book, for 1921-30 at p. 915 of the 1942 edition, for 1931-36 at p. 1115 of the 1946 edition and for 1937 at p. 284 of the 1948-49 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1938.....	200	1,572	835	52,395	185,709	26,682	2,939	4,068	11,550	1	285,951
1939.....	191	1,725	725	51,858	193,815	24,732	3,055	5,397	11,403	3	292,904
1940.....	240	2,388	2,064	47,927	210,834	23,795	3,815	6,709	13,906	—	311,678
1941.....	530	2,444	2,314	73,367	231,823	26,092	5,625	8,253	18,784	2	369,234
1942.....	331	2,594	1,765	110,579	232,646	25,522	4,034	7,779	14,705	2	399,957
1943.....	209	2,772	1,722	82,884	152,557	16,074	2,961	4,745	10,628	21	274,573
1944.....	326	1,591	1,838	85,134	146,849	16,268	2,864	4,754	10,387	10	270,021
1945.....	157	1,359	2,211	100,708	149,903	14,886	2,838	3,774	10,985	4	286,825
1946.....	327	1,707	2,014	123,915	271,379	26,266	5,253	5,574	17,193	2	453,630
1947.....	556	2,370	2,667	138,321	315,412	36,526	6,141	7,476	28,043	7	537,519

For the year 1947, Ontario, which had 43·5 p.c. of the registrations of motor-vehicles in Canada, had 58·7 p.c. of the total convictions for breaches of traffic regulations; Quebec in the same year had 16·2 p.c. of the motor-vehicles and 25·7 p.c. of the convictions. In interpreting the figures in this way, however, it should be pointed out that traffic regulations are by no means uniform throughout Canada and no account is taken of the differences in the degrees of urbanization in the provinces. Thus, the above two provinces have large urban centres, while in provinces with lower degrees of urbanization such as the Maritimes, Saskatchewan and Alberta, convictions were low in proportion to the number of motor-vehicles registered.

**Convictions of Females.**—In 1947, five of the provinces showed decreases from the previous year in the number of convictions of females for non-indictable offences. Convictions of females in Ontario increased by 3·9 p.c., Manitoba by 1·6 p.c., Alberta by 16·3 p.c., British Columbia by 17 p.c., and Yukon and Northwest Territories by 58·1 p.c. though the numbers are small.

Breaches of street-traffic regulations, the most numerous single offence of women, accounted for 18,698 in 1947 as against 18,017 in 1946. Drunkenness came next with 4,603 an increase of 347 over 1946. Infractions of liquor Acts numbered 1,524 as against 2,038 in the previous year, a considerable reduction. Convictions recorded as vagrancy were also less by 15·1 p.c.

Of a total of 34,508 convictions in 1947, no less than 3,479 or 10·1 p.c. were for minor infractions of municipal by-laws.

**16.—Convictions of Females for Non-Indictable Offences, by Provinces,  
Years Ended Sept. 30, 1942-47**

Province or Territory	Numbers of Convictions						Percentages of Convictions of Females to Total Convictions					
	1942	1943	1944	1945	1946	1947	1942	1943	1944	1945	1946	1947
Prince Edward Island..	75	75	69	82	124	43	4.9	7.3	5.7	5.9	4.6	1.5
Nova Scotia.....	554	466	562	645	635	383	5.3	5.3	6.8	6.6	4.9	3.2
New Brunswick.....	320	321	430	424	515	480	3.9	4.2	4.7	4.3	3.7	3.4
Quebec.....	8,893	9,139	5,299	7,066	6,974	6,738	4.5	5.0	3.7	4.5	3.9	3.6
Ontario.....	13,521	9,455	10,343	10,780	19,804	20,581	4.7	4.6	5.5	5.1	5.6	5.1
Manitoba.....	1,459	1,234	1,293	1,211	1,688	1,715	4.5	5.6	6.1	5.3	4.1	3.6
Saskatchewan.....	360	425	402	427	616	526	4.2	5.4	5.4	4.7	4.4	3.5
Alberta.....	678	711	634	754	900	1,057	4.7	6.1	5.6	6.5	5.6	5.7
British Columbia.....	1,453	1,227	1,391	1,907	2,509	2,936	5.8	6.0	6.8	8.3	7.8	6.4
Yukon and N.W.T.....	9	25	19	27	31	49	5.1	10.0	4.9	7.8	6.5	7.5
<b>Canada.....</b>	<b>27,322</b>	<b>23,078</b>	<b>20,442</b>	<b>23,323</b>	<b>33,805</b>	<b>34,508</b>	<b>4.7</b>	<b>5.0</b>	<b>5.0</b>	<b>5.1</b>	<b>5.1</b>	<b>4.6</b>

**Section 2.—Appeals**

In the calendar year 1947, 12.1 p.c. of the appeals in indictable cases resulted in the convictions being quashed. Appeals were dismissed in 68 p.c. of the cases, and new trials were directed in 5.9 p.c. of the cases while 14 p.c. of the sentences were varied. In non-indictable cases 50.2 p.c. of the appeals were dismissed, 34 p.c. of the convictions were quashed and 15.3 p.c. of the sentences were varied.

**17.—Appeals in Indictable and Non-Indictable Cases, by Provinces, 1947**

Province or Court	Appeals Disposed of by Courts	Methods of Disposal			
		Con- victions Quashed	Dismissed	New Trial Directed	Sentence Varied
INDICTABLE CASES					
	No.	No.	No.	No.	No.
Prince Edward Island.....	5	—	2	—	3
Nova Scotia.....	7	—	6	—	1
New Brunswick.....	12	1	8	1	2
Quebec.....	50	12	30	4	4
Ontario.....	298	32	200	17	49
Manitoba.....	17	—	14	—	3
Saskatchewan.....	15	—	10	1	4
Alberta.....	79	15	47	5	12
British Columbia.....	170	18	128	9	15
Supreme Court of Canada.....	9	2	5	2	—
Totals.....	662	80	450	39	93
NON-INDICTABLE CASES					
	No.	No.	No.	No.	No.
Prince Edward Island.....	38	9	15	—	14
Nova Scotia.....	29	6	20	—	3
New Brunswick.....	10	3	7	—	—
Quebec.....	52	11	38	—	3
Ontario.....	270	103	130	2	35
Manitoba.....	12	2	9	—	1
Saskatchewan.....	27	10	11	—	6
Alberta.....	57	18	31	—	8
British Columbia.....	75	32	25	1	17
Totals.....	570	194	286	3	87



## PART II.—YOUNG OFFENDERS

**Indictable Offences.**—It is a disquieting fact that in 1947 more than one-third (38·8 p.c.) of all indictable crimes were committed by young people between the ages of 16 and 24 years. As this age group includes the most daring offenders and at the same time those most likely to profit by education and training, it seems worthwhile to give consideration to it as distinct from the confirmed or older offenders groups. Where proper segregation in reformatories and penitentiaries is possible young offenders will be found more often in the open reformatories or institutions conducted on the Borstal system.

Offenders in this age group, although comprising only 15·6 p.c. of total population over 16 years of age, were responsible in 1947 for 70·6 p.c. of the crimes of burglary and robbery, 47·2 p.c. of all cases of damage to property without violence and 49·0 p.c. of the malicious damage to property including arson.

**1.—Convictions for Indictable Offences of Young Offenders, by Classes,  
Years Ended Sept. 30, 1945-47**

Offence	Numbers of Convictions							
	16-18 Years		19-20 Years		21-24 Years Inclusive		Totals	
	M.	F.	M.	F.	M.	F.	M.	F.
Offences against the person.....1945	299	18	346	20	791	49	1,436	87
.....1946	366	19	456	39	1,213	42	2,035	100
.....1947	320	20	412	19	1,155	51	1,887	90
Offences against property with violence.....1945	1,924	20	736	17	1,051	5	3,711	42
.....1946	1,829	11	975	12	1,169	18	3,973	41
.....1947	1,601	9	797	5	1,318	16	3,716	30
Offences against property without violence.....1945	3,466	248	1,710	187	2,334	233	7,510	668
.....1946	3,217	221	1,812	167	2,605	234	7,634	622
.....1947	2,741	244	1,744	109	3,005	237	7,490	590
Malicious offences against property....1945	245	5	92	3	154	7	491	15
.....1946	263	5	122	—	241	8	626	13
.....1947	183	5	110	3	202	5	495	13
Forgery and offences against currency..1945	142	13	73	18	200	36	415	67
.....1946	197	22	186	24	220	39	603	85
.....1947	193	50	179	37	356	69	728	156
Other offences.....1945	466	112	468	62	986	179	1,920	353
.....1946	398	126	464	48	1,230	189	2,092	363
.....1947	292	51	353	21	1,057	115	1,702	187

**Types of Crime.**—In 1947, the most common crime against the person, committed by young men, was common and aggravated assault including assault on and obstructing the police. However, it should be noted that in 1947 there was a decrease in all classes of offences since 1946, except for forgery and offences against currency which increased by 20·7 p.c. for males and by 83·5 p.c. for females. In the case of males these offences increased in the age group 21-24 years only but for females in the lowest age group 16-18 years it increased by over 127 p.c., 19-20 years by 54 p.c. and 21-24 years by 77 p.c.

More convictions were recorded for theft than for any other offence and 23·8 p.c. of the 6,093 thefts were of motor-vehicles. Such offences as the latter often lead to more serious crimes such as robbery and burglary, which were the next most frequent. Theft, too, is the most common cause for bringing young women before the courts on indictment, though with them theft of cars is almost negligible.

Offences common to males tend towards those requiring physical strength and daring but women are given to offences that require mental agility and cunning, such as fraud, embezzlement and false pretences, forgery and uttering forged documents.

## 2.—Convictions for Indictable Offences of Young Offenders, by Classes, Year Ended Sept. 30, 1947

Class and Offence	Numbers of Convictions	
	Male	Female
<b>Class I.—Offences Against the Person—</b>		
Abduction.....	5	—
Assault, common and aggravated.....	1,454	60
Offences against females <sup>1</sup> .....	233	7
Manslaughter and murder.....	22	1
Attempted murder; shooting and wounding.....	22	4
Non-support, desertion.....	45	5
Other offences against the person.....	106	13
<b>Totals, Class I.....</b>	<b>1,887</b>	<b>90</b>
<b>Class II.—Offences Against Property with Violence—</b>		
Burglary and robbery.....	3,716	30
<b>Totals, Class II.....</b>	<b>3,716</b>	<b>30</b>
<b>Class III.—Offences Against Property Without Violence—</b>		
Fraud, embezzlement and false pretences.....	817	149
Receiving stolen goods.....	580	22
Theft.....	6,093	419
<b>Totals, Class III.....</b>	<b>7,490</b>	<b>590</b>
<b>Class IV.—Malicious Offences Against Property—</b>		
Arson.....	16	—
Malicious damage to property.....	479	13
<b>Totals, Class IV.....</b>	<b>495</b>	<b>13</b>
<b>Class V.—Forgery and Other Offences Against the Currency—</b>		
Offences against currency.....	1	—
Forgery and uttering forged documents.....	727	156
<b>Totals, Class V.....</b>	<b>728</b>	<b>156</b>
<b>Class VI.—Other Offences—</b>		
Carrying unlawful weapons.....	249	3
Dangerous or reckless driving.....	407	5
Driving car while drunk.....	224	4
Offences against public morals.....	52	28
Opium and Narcotic Drug Act, offences against.....	40	12
Gambling and lotteries.....	44	6
Keeping bawdy houses and inmates.....	11	85
Riots and unlawful assembly.....	203	3
Various.....	472	41
<b>Totals, Class VI.....</b>	<b>1,702</b>	<b>187</b>
<b>Grand Totals.....</b>	<b>16,018</b>	<b>1,066</b>

<sup>1</sup> Offences against females include the following crimes: abortion, assault against females, assault against wife, indecent assault, carnal knowledge, incest, procuration, rape, attempted rape, seduction and wife desertion.

In Table 3 the rates per 100,000 population show the proportions of the offences committed by young offenders in three age groups.

### 3.—Convictions of Young Offenders for Indictable Offences, by Age Groups, Years Ended Sept. 30, 1945-47

NOTE.—Population figures used are official estimates in each age group.

Year	Ages of Offenders								
	16-18 years			19-20 years			21-24 years inclusive		
	Number of Convictions	Rate per 100,000 Population	Percentage Change from Preceding Year	Number of Convictions	Rate per 100,000 Population	Percentage Change from Preceding Year	Number of Convictions	Rate per 100,000 Population	Percentage Change from Preceding Year
1945....	6,958	1,064	-7.1	3,732	842	-5.3	6,025	686	+2.4
1946....	6,674	1,033	-4.1	4,305	983	+15.4	7,208	823	+19.6
1947....	5,709	889	-14.5	3,789	867	-12.0	7,586	861	+5.2

## PART III.—JUVENILE DELINQUENCY

### Section 1.—Causes and Court Treatment of Juvenile Delinquency

Information on the causes and court treatment of juvenile delinquency is given at pp. 247-248 of the 1947 Year Book.

### Section 2.—Juvenile Delinquency Statistics

The Juvenile Delinquents Act defines a child as "any boy or girl apparently or actually under the age of 16 years". Provision is made, however, by which the Governor in Council may proclaim that in a Province the definition of a child be a "person under the age of 18 years". This has been done in British Columbia, Alberta, Manitoba and Quebec. For uniformity the figures relating to juveniles compiled by the Dominion Bureau of Statistics refer to the younger ages of under 16 years only.

The "Annual Report of Criminal and Other Offences" published by the Dominion Bureau of Statistics deals primarily with delinquency cases disposed of by the courts. The information it gives serves to further the program of the treatment of young offenders. The fact that juvenile court statistics furnish the most comprehensive figures collected on a country-wide basis makes it important that the possibilities and limitations of these statistics be understood.

In the first place, it is impossible for any report to give a complete picture of juvenile delinquency, as many instances of minor offences are not detected, while others are settled by the police, social agencies, or school authorities without the necessity of apprehending the child. This is particularly true in rural districts where the courts are not readily accessible.

Secondly, the number of cases brought before the courts is influenced by such factors as the personnel and facilities of the court, and community interest in, and understanding of, the function of a juvenile court. Furthermore, it must be

remembered that as time goes on more courts are established and the additional returns may exaggerate an apparent increase in delinquency or may under-estimate a decrease.

Thirdly, although the figures refer to offenders rather than offences, they do not represent the number of delinquent juveniles because some children may be brought to court more than once within a year, and in the tables of the Report such children are recorded as separate individuals each time they appear on a new complaint.

Lastly, the number of delinquency cases reported by the courts is affected, to a considerable extent, by variations in the policies of the courts in the disposition of cases. Some courts handle certain cases unofficially, that is, in these cases legal papers are not prepared and the case is adjusted by the judge or other officer of the court without a formal court hearing. Although some of the courts report the cases as adjourned *sine die*, others consider the interview as an 'occurrence', meaning that the case is not recorded as a charge.

Reports of juvenile offences were received in 1947 from 136 judicial districts out of a total of 150 districts.\* Fourteen districts reported no offences. The reporting area for 1947, as for earlier years, is particularly representative of cities and towns, and includes 105 urban centres in Canada with populations of 4,000 or over.

### Subsection 1.—Total Juvenile Offences

The terms 'indictable' and 'non-indictable' are applied only to offences of adults. Similar offences committed by juveniles are termed 'major' offences and 'minor' offences, respectively.

**Delinquents Brought Before the Courts.**—The statistics for 1947 show that the decline in the number of court cases of juvenile delinquency, first noted in 1943, is continuing. Children brought before Canadian courts during 1947 numbered 8,265 as compared with 8,707 in 1946, a decrease of 5.1 p.c. The number of delinquents charged with major offences decreased from 5,409 in the previous year to 5,152 in 1947, or 4.8 p.c. The number of juveniles charged with minor offences that were disposed of by the courts was 3,113 during 1947 as against 3,298 in the preceding year, a falling-off of 5.6 p.c.

Table 1 shows the number of cases brought before the courts, by provinces, from 1943 to 1947. In 1947 a decrease was apparent in each of the provinces, except Nova Scotia, Manitoba, Saskatchewan and British Columbia, as compared with the previous year. Yukon and the Northwest Territories reported cases for the first time since 1940.

\* In Quebec, the Judicial Districts of Rouyn-Noranda and Témiscamingue have been added. The 18 counties in Nova Scotia are combined in 7 judicial districts.



**1.—Juvenile Offenders Brought Before the Courts, by Provinces, Years Ended Sept. 30, 1943-47**

Province or Territory	1943	1944	1945	1946	1947	Percentage Change, 1946-47
	No.	No.	No.	No.	No.	
Prince Edward Island.....	89	109	118	63	30	-52.4
Nova Scotia.....	715	689	598	491	513	+4.5
New Brunswick.....	430	475	341	385	342	-11.2
Quebec.....	3,373	2,621	2,390	2,183	1,908	-12.6
Ontario.....	5,573	5,388	4,190	3,684	3,262	-11.5
Manitoba.....	467	445	366	344	490	+42.4
Saskatchewan.....	429	437	339	203	222	+9.4
Alberta.....	493	599	563	455	300	-34.1
British Columbia.....	656	791	851	899	1,181	+31.4
Yukon.....	—	—	—	—	4	+100.0
Northwest Territories.....	—	—	—	—	13	+100.0
<b>Canada.....</b>	<b>12,235</b>	<b>11,554</b>	<b>9,756</b>	<b>8,707</b>	<b>8,265</b>	<b>-5.1</b>

The peak in delinquency among girls was reached in 1943, a year later than for boys, followed by a decline in numbers for both sexes. The ratio between boys and girls charged in court shows a gradual up-gradings for the girls until 1946. The actual number of girls appearing in court in 1947 was the lowest since 1938.

**2.—Ratio of Boys and Girls Brought Before the Courts, Years Ended Sept. 30, 1933-47**

Year	Boys		Girls		Total Charges
	No.	p.c.	No.	p.c.	No.
1938.....	8,086	90.6	843	9.4	8,929
1939.....	8,514	89.6	983	10.4	9,497
1940.....	8,857	88.8	1,119	11.2	9,976
1941.....	10,812	89.1	1,325	10.9	12,137
1942.....	12,388	89.8	1,414	10.2	13,802
1943.....	10,795	88.3	1,430	11.7	12,225
1944.....	10,274	88.9	1,280	11.1	11,554
1945.....	8,599	88.1	1,157	11.9	9,756
1946.....	7,617	87.5	1,090	12.5	8,707
1947.....	7,363	89.1	902	10.9	8,265

**3.—Percentage Changes in the Numbers of Boys and Girls Brought Before the Courts from the Preceding Year and from the Year 1937, 1938-47**

Year	Percentage Changes from Preceding Year			Percentage Changes from 1937		
	Boys' Cases	Girls' Cases	All Cases	Boys' Cases	Girls' Cases	All Cases
1938.....	-9.0	+6.8	-7.7	-9.0	+6.8	-7.7
1939.....	+5.3	+16.6	+6.4	-4.2	+24.6	-1.8
1940.....	+4.0	+13.8	+5.0	-0.3	+41.8	+3.1
1941.....	+22.1	+18.4	+21.7	+21.7	+67.9	+25.4
1942.....	+14.6	+6.7	+13.7	+39.4	+79.2	+42.7
1943.....	-12.9	+1.1	-11.4	+21.5	+81.2	+26.4
1944.....	-4.8	-10.5	-5.5	+15.6	+62.2	+19.4
1945.....	-16.3	-9.6	-15.6	-3.2	+46.6	+0.8
1946.....	-11.4	-5.8	-10.8	-14.3	+38.1	-10.0
1947.....	-3.3	-17.3	-5.1	-17.1	+14.3	-14.6

**Trends in Juvenile Delinquency.**—The first three years of the Second World War were marked by serious and rapid increases in juvenile delinquency. This was to some extent the outcome of the 'broken home' situation brought about by the enlistment of the male parent, the resultant removal of the father's restraining influence and the increase in the responsibilities placed upon the mother during his absence. The figures for 1942 reached an all-time high with 11,758 major and minor convictions. Since then there has been a gradual decline to 7,545 in 1947, the lowest figure since 1938. Though the continued decline is encouraging, efforts should not be slackened to attain even better results.

Many factors are contributing to the apparent reduction in cases of delinquency. Communities are realizing that the solution to this problem is to be found in an extension of opportunities that will provide wholesome occupation for after-school hours, early detection and treatment of delinquents, better psychiatric service for schools and mental hygiene clinics, trained personnel for probation and juvenile court work, better parenthood through home and school associations and adult education programs and improved housing. There is no longer the opportunity for highly paid employment which lured young people from school during the War. A more sympathetic interest in the activities of youth on the part of the police is evident in the assignment of special constables to juvenile cases and the "police and youth" program inaugurated by the Royal Canadian Mounted Police and adopted in many centres by municipal and provincial police (see p. 330).

On the federal level the development of a national physical fitness program in 1943, followed, in 1945, by the payment of family allowances for children under 16 years of age, the provision of special services in local offices of the National Employment Services for the placement of the 'first jobbers', and the continuance of a high rate of employment all assist in maintaining the downward trend.

In recent years changes have been made in provincial legislation for the better protection of children. For example, in 1943 British Columbia passed an Act to provide for the Protection of Children. In 1944 New Brunswick passed the Juvenile Court Act and Saskatchewan the Act to amend the Child Welfare Act whereby children, who were wards, came under the authority of the Department of Social Welfare rather than the Department of Labour and Public Welfare. In 1945 the Prince Edward Island Minimum Age for Industrial Employment was set at 15 years. In March, 1946, Alberta amended the Mothers Allowance Act raising the permissible age of a child attending school to 18 years if school-work is satisfactory. In the same year in Quebec, a Department of Social Welfare and Youth was created to take an active interest in the prevention of delinquency and the improvement of reform institutions; and in Ontario, a Department of Reform Institutions was established. In 1947 an Act was passed making provision for the establishment of a Nova Scotia School for Boys to serve as a reformatory for the older group of juvenile offenders.

### Subsection 2.—Major Offences

Table 4 shows the convictions of juveniles for major offences for the years 1938-47.

In the ten-year period 1938-47, the number of convictions for major offences per 100,000 of the population of the age group 7 to 16 years went as high as 357 in the peak year of 1942, while in 1947 it was 243.

#### 4.—Convictions of Juveniles for Major Offences, by Provinces, Years Ended Sept. 30, 1938-47

NOTE.—Figures for the years 1933-37 are given at p. 254 of the 1947 Year Book.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
1938.....	21	283	224	1,357	2,162	222	225	298	263	—	5,055
1939.....	45	228	244	1,245	2,164	293	201	321	277	—	5,018
1940.....	41	195	251	1,461	2,229	286	208	364	262	1	5,298
1941.....	58	244	344	1,637	2,588	315	263	378	377	—	6,204
1942.....	60	220	279	1,617	3,071	503	397	472	301	—	6,920
1943.....	53	373	337	1,455	2,804	363	359	349	401	—	6,494
1944.....	82	362	363	1,212	2,901	345	356	431	477	—	6,529
1945.....	55	390	221	1,239	2,394	277	282	384	516	—	5,758
1946.....	54	293	257	1,122	1,993	238	182	327	483	—	4,949
1947.....	29	316	248	951	1,861	357	197	225	482	17	4,683

Offences against property made up the bulk of major delinquencies (92.9 p.c.) and more than one-half of those were offences against property without violence (56.3 p.c.). This group includes all thefts without violence. Offences against property with violence (burglary, breaking and entering) which were on the increase until 1944 followed the general downward trend in 1945 and 1946 but increased slightly in 1947. They comprised more than one-quarter of the total convictions for major offences (29.7 p.c.).

Figures for offences against persons were not more than 4.2 p.c. of the total number of convictions for major offences in the period 1938-46 but were 4.0 p.c. in 1947.

#### 5.—Convictions of Juveniles for Major Offences, by Classes of Offence, Years Ended Sept. 30, 1938-47

NOTE.—This table is not comparable with those published in previous Year Books as rates are based on the population 7-16 years of age and former rates were compiled on total population.

Year	Offences Against the Person		Offences Against Property with Violence		Offences Against Property without Violence		Malicious Offences Against Property		Forgery and Offences Against Currency		Other Offences		Total Convictions	
	No.	Per 100,000 Pop.	No.	Per 100,000 Pop.	No.	Per 100,000 Pop.	No.	Per 100,000 Pop.	No.	Per 100,000 Pop.	No.	Per 100,000 Pop.	No.	Per 100,000 Pop.
1938.....	184	9	1,122	56	3,062	153	612	31	9	1	66	3	5,055	253
1939.....	190	9	1,207	61	2,926	147	589	29	13	1	93	5	5,018	252
1940.....	208	11	1,261	64	3,058	155	662	34	8	—	101	5	5,298	269
1941.....	263	13	1,407	72	3,467	178	947	49	14	1	106	5	6,204	318
1942.....	206	11	1,536	79	4,039	208	1,015	52	11	1	113	6	6,920	357
1943.....	258	13	1,550	81	3,658	190	892	46	21	1	115	6	6,494	337
1944.....	215	11	1,739	91	3,393	178	1,022	54	22	1	138	7	6,529	342
1945.....	218	12	1,513	80	2,964	157	933	49	29	2	101	5	5,758	305
1946.....	173	9	1,353	71	2,594	137	668	35	23	1	138	7	4,949	260
1947.....	188	10	1,389	72	2,449	127	515	27	23	1	119	6	4,683	243

**Types of Major Offences Related to Age and Sex of Offenders.**—The outstanding point of interest in juvenile delinquency is the fact that the total number of major offences in 1947 for all delinquents was lower than any figure reported since 1924. The reductions which accounted for this improved figure in 1947, are to be found in fewer cases than in 1946 of aggravated assault and wounding, endangering life on railway, theft and receiving stolen goods, wilful damage to property and immorality. Immorality was the third highest misdemeanor of the girls.



Of those appearing in court, 10·9 p.c. were girls in 1947 and 4·6 p.c. of convictions for major offences were against girls.

**6.—Convictions of Juveniles for Major Offences, by Types and Sex, Years Ended Sept. 30, 1943-47**

Offence	1943		1944		1945		1946		1947	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Manslaughter and murder.....	1	—	3	—	—	—	1	—	1	—
Rape, carnal knowledge and incest....	1	—	5	—	13	1	8	—	9	3
Indecent assault.....	46	—	38	—	30	—	33	—	41	—
Aggravated assault and wounding.....	24	4	53	3	25	2	29	2	14	—
Common assault.....	95	23	71	9	103	12	60	8	81	12
Endangering life on railway.....	63	—	26	—	30	—	24	—	14	—
Other offences against the person.....	1	—	3	4	1	1	8	—	12	1
Burglary, breaking and entering.....	1,509	23	1,675	27	1,467	27	1,310	20	1,319	35
Robbery.....	18	—	37	—	15	4	20	3	35	—
Theft and receiving stolen goods.....	3,462	178	3,218	162	2,810	134	2,445	129	2,315	113
Embezzlement, false pretences and fraud.....	17	1	11	2	15	5	18	2	16	5
Arson.....	23	—	35	2	19	—	16	2	31	—
Wilful damage to property.....	839	30	969	16	895	19	631	19	477	7
Forgery and offences against currency.....	20	1	18	4	23	6	20	3	17	6
Immorality.....	16	47	21	48	23	26	22	40	19	25
Various other offences.....	40	12	62	7	47	5	59	17	67	8
<b>Totals.....</b>	<b>6,175</b>	<b>319</b>	<b>6,245</b>	<b>284</b>	<b>5,516</b>	<b>242</b>	<b>4,701</b>	<b>245</b>	<b>4,468</b>	<b>215</b>

As children become older, the percentage of major offences tends to increase. In 1946 more than one-half the major offences were committed by boys and girls of 14 and 15 years of age, the former 45·8 p.c. and the latter 55·8 p.c. However, in 1947 it was the younger children who showed an increase in the number of major offences over those of 1946. These offences were committed by those of both sexes, of seven and eight years of age, the ten-year old girls and the eleven and twelve-year old boys, in fact, 37·4 p.c. of major offences involving boys were committed by lads of 12 years of age and younger.

**Education and Delinquency.**—Presuming that six is the age for entering school, 51·2 p.c. of the girls and 49·1 p.c. of the boys known to have attended elementary school committed major offences in 1947. These juveniles were two years or more behind the normal grade for their age. Only 2·2 p.c. of juvenile delinquents were a year or more in advance of the usual grade for their age and 8·4 p.c. attended high school for some period of time.

**7.—Age, Sex and School Grade of Juvenile Delinquents Committing Major Offences, Year Ended Sept. 30, 1947**

(B=Boys; G=Girls)

Age	Elementary Grades																Secondary Grades		Not Given		Totals			
	I		II		III		IV		V		VI		VII		VIII		B		G		B		G	
	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G
7 years.....	21	1	14	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	40	1
8 ".....	13	1	47	2	25	2	8	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	96	5
9 ".....	3	—	40	—	71	2	38	2	13	—	1	—	—	—	—	—	—	—	16	1	—	—	182	5
10 ".....	3	—	35	—	73	5	94	3	57	3	20	—	1	—	2	—	—	—	26	1	—	—	311	12
11 ".....	1	1	18	—	75	—	108	4	121	2	64	3	18	2	1	—	—	—	36	5	—	—	442	17
12 ".....	4	—	10	—	43	1	100	3	133	9	158	2	69	1	13	—	1	—	68	2	—	—	599	18
13 ".....	—	—	11	1	32	—	65	2	106	6	145	5	152	4	67	9	20	1	95	3	—	—	693	31
14 ".....	1	—	9	—	14	—	62	1	99	3	152	7	207	11	181	15	97	1	129	7	—	—	951	45
15 ".....	—	—	5	—	13	1	52	6	69	6	121	10	180	15	194	12	255	13	207	12	1,096	75	—	—
Not given.....	—	—	—	—	—	—	2	—	2	—	1	—	5	1	5	—	4	—	39	5	—	—	58	6
Totals.....	46	3	189	3	346	11	531	21	690	29	662	27	632	34	463	36	377	15	622	36	4,468	215	—	—



**Repeaters.**—Experience, which dispels or increases resentment to authority, may be a factor in encouraging or deterring repeaters. Some of the responsibility for the attitude that is built up, be it good or bad, rests on the police, the probation officer, the staff of the detention home and the judge. The recollection of how he was picked up the first time, how he was handled while awaiting hearing, the opinion of those in whose care he was placed during the process of readjustment, all make an impression on a child.

Over the ten-year period, 1938-47, approximately one in every four children brought before the court for major offences had failed to heed the first warning of the court and had made at least a second appearance. The figures for major offences in 1947 showed that in more than two-thirds of the cases (72.1 p.c.) the children were brought before the court for the first time, 14.4 p.c. were second offenders, 7.0 p.c. third, 2.9 p.c. fourth and 3.6 p.c. were dealt with by the courts five or more times. Previous court experience of boys and girls who were committed for major offences is shown in Table 8, covering the period 1938-47.

**8. — First Offenders and Repeaters of Major Offences, Years Ended Sept. 30, 1938-47**

Year	Total Delinquents	First Offenders	Repeaters					Percentage of Total Delinquents
			Second	Third	Fourth	Fifth or More	Total	
	No.	No.	No.	No.	No.	No.	No.	
1938.....	5,055	3,537	767	357	144	250	1,518	30.03
1939.....	5,018	3,588	709	306	192	223	1,430	28.50
1940.....	5,298	3,711	813	357	190	227	1,587	29.95
1941.....	6,204	4,356	994	396	199	259	1,848	29.79
1942.....	6,920	5,577	669	348	144	182	1,343	19.41
1943.....	6,494	4,831	865	386	183	229	1,663	25.61
1944.....	6,529	4,665	943	429	221	271	1,864	28.55
1945.....	5,758	4,231	812	337	137	241	1,527	26.52
1946.....	4,949	3,430	799	344	155	221	1,519	30.69
1947.....	4,683	3,376	673	329	138	167	1,307	27.91

**Disposition of Cases of Major Offenders.**—The disposition of cases by the various courts depends on the practices within the courts and on the facilities for court supervision, for institutional care and for other services for children. The practices may vary between courts or from year to year in the same court but generally, the disposition of cases remains much the same. Placing the child on probation of the court or of his parents and suspended sentences accounted for more than one-half of the disposition of cases for major offences in 1947. The cases sent to training schools represented 14.1 p.c.

### 9.—Disposition of Delinquents Convicted of Major Offences, with Percentages of Total Major Offences, Years Ended Sept. 30, 1938-47

NOTE.—Figures for the years 1922-36 are given at pp. 259-260 of the 1947 Year Book; for 1937 see p. 294 of the 1948-49 edition.

Year	Reprimanded		Probation of Court		Protection of Parents		Fined or Made Res-titution		Detained Inde-finitely		Sent to Training School		Sentence Sus-pended		Corporal Punish-ment	
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
1938.....	383	7.6	1,949	38.6	38	0.8	301	6.0	36	0.7	614	12.1	1,686	33.3	48	0.9
1939.....	404	8.0	1,631	32.5	28	0.6	228	4.5	119	2.4	639	12.7	1,941	38.7	28	0.6
1940.....	296	5.6	2,108	39.8	33	0.6	281	5.3	111	2.1	785	14.8	1,643	31.0	41	0.8
1941.....	422	6.8	2,836	45.7	130	2.1	411	6.7	108	1.7	820	13.2	1,442	23.2	35	0.6
1942.....	432	6.2	1,984	28.7	83	1.2	854	12.3	96	1.5	847	12.2	2,573	37.2	51	0.7
1943.....	464	7.1	1,798	27.7	140	2.2	1,001	15.4	92	1.4	906	14.0	2,041	31.4	52	0.8
1944.....	395	6.0	1,745	26.7	112	1.7	1,545	23.7	83	1.3	838	12.8	1,747	26.8	64	1.0
1945.....	352	6.1	1,581	27.5	109	1.9	1,514	26.3	54	0.9	753	13.1	1,372	23.8	23	0.4
1946.....	233	4.7	1,433	29.0	67	1.3	1,207	24.4	48	1.0	720	14.5	1,213	24.5	28	0.6
1947.....	182	3.9	1,417	30.3	69	1.5	1,256	26.8	34	0.7	663	14.1	1,038	22.2	24	0.5

### Subsection 3.—Minor Offences

Convictions for minor offences, like those for major offences, have declined steadily since 1942. The apparent decline of minor offences in 1947 is due to fewer charges and convictions against girls which offset a slight increase in the number of those against boys.

Traffic infractions and incorrigibility are the most frequent misdemeanours of a minor nature for both boys and girls. However, only 88 of the 600 traffic infractions were related to motor cars. The remainder were misdemeanours to do with bicycles such as having no lights or bell, riding on the sidewalk or without a licence, etc.

Table 10 gives a summary of convictions of juveniles for minor offences by types of offence for the years 1938-47.

### 10.—Convictions of Juveniles for Minor Offences, by Types of Offence, with Percentages of Total Minor Convictions, Years Ended Sept. 30, 1938-47

NOTE.—Figures for the years 1922-36 are given at p. 261 of the 1947 Year Book and for 1937 at p. 295 of the 1948-49 edition.

Year	Traffic Regu-lations		Disorderly Conduct and Disturbing the Peace		Incor-rigibility		Truancy		Vagrancy and Wandering Away from Home		Other Minor Offences		Total Minor Offences	
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
1938.....	201	10.2	312	15.7	677	34.2	264	13.3	77	3.9	449	22.7	1,980	100.0
1939.....	273	10.5	454	17.5	761	29.3	264	10.2	138	5.3	705	27.2	2,595	100.0
1940.....	399	12.7	604	19.3	951	30.4	289	9.2	125	4.0	765	24.4	3,133	100.0
1941.....	835	20.4	501	12.2	1,145	27.9	366	8.9	209	5.1	1,050	25.5	4,106	100.0
1942.....	994	20.6	418	8.6	1,275	26.4	348	7.2	360	7.4	1,443	29.8	4,838	100.0
1943.....	463	12.2	283	7.4	984	25.9	372	9.8	435	11.4	1,265	33.3	3,802	100.0
1944.....	637	18.8	199	5.8	873	25.8	498	14.7	267	7.9	914	27.0	3,388	100.0
1945.....	487	15.5	216	6.8	838	26.6	424	13.5	222	7.0	964	30.6	3,151	100.0
1946.....	537	18.5	341	11.7	745	25.6	352	12.1	149	5.2	783	26.9	2,907	100.0
1947.....	600	21.0	300	10.5	652	22.8	327	11.4	193	6.7	790	27.6	2,862	100.0

**Disposition of Cases of Minor Offences.**—The disposition of juveniles brought before the courts for minor offences is proportionately much the same as that for major offences. Over the ten-year period 1938-47, well over one-half of

the delinquents were reprimanded and allowed to go under supervision or to have their sentences suspended. Approximately 23 p.c. made restitution for damages or paid a fine, and 14 p.c. were committed to training schools.

#### 11.—Disposition of Delinquents Convicted of Minor Offences, with Percentages of Total Minor Offences, Years Ended Sept. 30, 1938-47

NOTE.—Figures for the years 1922-36 are given at p. 262 of the 1947 Year Book and for 1937 at p. 295 of the 1948-49 edition.

Year	Reprimanded and Allowed to Go Under Supervision		Detained Indefinitely		Sent to Training School		Fined or Paid Damage		Sentence Suspended	
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
1938.....	756	38.2	9	0.4	233	11.8	171	8.6	811	41.0
1939.....	631	24.3	37	1.4	345	13.3	380	14.6	1,202	46.4
1940.....	1,340	42.8	52	1.7	409	13.0	542	17.3	790	25.2
1941.....	2,188	53.3	31	0.8	512	12.5	986	24.0	389	9.4
1942.....	1,085	22.4	22	0.5	607	12.6	1,448	29.9	1,676	34.6
1943.....	1,056	27.8	9	0.2	495	13.0	961	25.3	1,281	33.7
1944.....	1,035	30.5	9	0.3	538	15.9	1,002	29.6	804	23.7
1945.....	1,117	35.4	11	0.4	595	18.9	853	27.1	575	18.2
1946.....	858	29.5	5	0.2	460	15.8	647	22.3	937	32.2
1947.....	856	29.9	6	0.2	445	15.5	860	30.1	695	24.3

### PART IV.—POLICE FORCES IN CANADA\*

The Police Forces operating in Canada are organized under three groups: (1) the Federal Force, which is the Royal Canadian Mounted Police and whose operations cover a very wide field in addition to purely police work; (2) the Provincial Police Forces—the Provinces of Ontario, Quebec and British Columbia have organized their own Provincial Forces, but the other provinces engage the services of the Royal Canadian Mounted Police to perform parallel functions within their boundaries; (3) the Municipal Police—every city of reasonable size employs its own police organization which is paid for by the local taxpayers and which attends strictly to police matters within the borders of the municipality concerned.

The organizations under these three headings are described in turn below.

#### THE INFLUENCE OF THE ROYAL CANADIAN MOUNTED POLICE IN THE BUILDING OF CANADA

In 1670 King Charles II granted a charter to the Hudson's Bay Company for the purpose of trading in the vast and undefined area of Rupert's Land. This territory, with the exception of certain rights reserved to the Company, was purchased by the Dominion of Canada in 1869 and the Province of Manitoba was carved out of the acquired land in 1870. At the time of the sale, the city of Winnipeg had already come into existence as the gateway to the enormous and potentially rich area that stretched westward approximately 1,000 miles from the Red River Valley to the Rockies and from the United States Boundary to the forest country of northern Saskatchewan. But this was the only centre of importance.

\* The material under this heading has been obtained through the courtesy of Commissioner S. T. Wood, C.M.G., of the Royal Canadian Mounted Police. Section 2, dealing with Provincial Police Forces, was submitted to Commissioner Wood by Geo. A. Shea, O.B.E., Secretary-Treasurer, Chief Constables' Association of Canada, who, in turn, received the basic data from the individual Provincial Police Commissioners.



**Conditions Attendant on the Opening-Up of Western Canada.**—The new territory was a vast Indian hunting and battle ground—a gigantic buffalo pasture. The Indians of the farther plains had never permitted permanent trading posts to be established there, though they had not refused to accept trading visitors from the Saskatchewan and Missouri Valleys. But this did not satisfy the white man. Wagon trains from the Missouri River Valley and free traders with their carts from the Red River Settlement began to carry 'fire-water' to the Indians. Though many Hudson's Bay Company officers and missionaries made frequent and vigorous complaints, these had little effect and a veritable plague of illicit traffickers swarmed across the Border to the utter demoralization of Indians and white men alike. Especially troublesome were the members of the ferocious Blackfoot Nation—the Blackfoot proper, the Bloods and Piegans, all speaking the same language, and the Sarcees, a small adopted tribe. Settlers on their way north from the United States were commonly waylaid by debauched Indians and completely wiped out.

In 1873 a small party of freebooters from beyond the Boundary fell upon a camp of Assiniboines in the Cypress Hills, on the Canadian side, in retaliation, it was said, for wrongs inflicted by Indians from the north. With repeating rifles they cut down the defenceless red men indiscriminately. For no apparent reason, a camp of Piegans was butchered mercilessly to the number of 170 men, women and children by armed white men. Smallpox also appeared and was reducing the Indians of the plains to a sorry plight. These conditions were not conducive to orderly settlement. About this time, too, the demarcation of the western half of the International Boundary was being carried forward under an International Boundary Commission.

Altogether it was a strenuous period for the young Dominion—the Fenian raids had drawn heavily upon the Treasury, the future of the railway planned to span the continent at tremendous expense was obscure, the new Provinces of Manitoba and British Columbia were being organized, a severe trade depression prevailed and revenues were limited.

The Dominion Government, disturbed by the constant reports of lawlessness and disorder, assigned an officer to examine conditions. He reported that the entire Northwest was "without law, order or security for life or property" and recommended: (a) the appointment of a Civil Magistrate or Commissioner, after the models existing in Ireland and India; (b) the organization of a well-equipped force of from 100 to 150 men, one-third to be mounted; (c) the establishment of several government posts; and (d) the extinguishment by treaty of Indian titles to the land, and other essentials.

The commanding officer of the Canadian Militia was also despatched upon a western reconnaissance. He in turn reported that "a large military force was not required, but that the presence of a certain force would be found to be indispensable for the security of the country, to prevent bloodshed and preserve order".

**The Establishment of the North West Mounted Police.**—On May 23, 1873, six years after Confederation, the Dominion Parliament authorized the establishment of the North West Mounted Police. It had been the intention to call the Force "Mounted Rifles" but, in deference to suggestions reaching him, the Prime Minister, the Right Honourable Sir John A. Macdonald, drew his pen through the words and substituted "Mounted Police". The plan called for the enlistment of men between the ages of 18 and 40, of sound constitution, able to ride, active, able-bodied



and of good character. The command was to be divided into Troops. The commanding officer was to be termed "Commissioner", and have the rank of Lieutenant-Colonel. The term of service was to be for at least three years. The Force was to be a semi-military body, the immediate objectives being to stop the liquor traffic among the Indians, to gain their respect and confidence, to break them of their old practices by tact and patience, to collect customs dues, and to perform all the duties of a police force. An Act passed in 1874 prohibited the importation or manufacture in the Northwest of intoxicating liquors, and a Board of Indian Commissioners was appointed to deal with treaty-making and general policy.

The authorized strength of the Force was 300 men, but it was decided, for the time being, to form only three Troops of 50 men each. These Troops were sent that autumn (1873) over the so-called Dawson Route from the head of Lake Superior. They reached Red River in late October and proceeded to the Lower Fort Garry, or "Stone Fort", 20 miles down the river from Winnipeg.

The newly appointed Commissioner was not slow to understand that, upon penetrating the plains, the Force would have to be well prepared and that, beyond the farthest point reached by the Boundary Commission, the country would be practically unknown. When it was realized that 150 men would be insufficient for the task in hand, further recruiting was authorized to bring the Force to the full 300. The three additional Troops left Toronto in the late spring of 1874. The westward journey was made by train through Chicago and St. Paul to a point in North Dakota a few miles south of the Manitoba section of the International Boundary. From there they proceeded across the 'line' and were joined by those who had wintered at the Stone Fort.

**The Great March.**—On July 8, 1874, the entire Force of six Troops struck westward from the little settlement of Dufferin on the Red River, the headquarters of the Boundary Commission. The Boundary was to be paralleled as nearly as possible at a reasonable distance, the chief objective being the forks of the Bow and Belly Rivers in the land of the Blackfeet. Reports had it that the whisky traders from the Missouri occupied a main establishment in that area, grimly termed "Fort Whoop-Up", and that the most diabolical orgies were rampant in the Indian camps.

Day after day, the travel-worn cavalcade, accompanied by ox-carts, wagons, cattle for slaughter, several field pieces and mortars, mowing machines and other equipment, faced new difficulties. The long grind from the Red River left its impress on the little army, but the first rough experiences disclosed a stamina and endurance that augured well. After more than two months of hard travel the junction of the Bow and Belly Rivers was reached, but Fort Whoop-Up could not be found and, with provisions all but exhausted and with horses, oxen and beef cattle reduced in numbers, the red-coated troopers turned southward through immense herds of buffalo to the Sweet Grass Hills near the Boundary.

Being now within easy access of the big supply centre of Fort Benton on the Upper Missouri, the Commissioner and Assistant-Commissioner left the Force encamped and proceeded southward to purchase supplies and horses. Meantime, arrangements had been made for the construction of a headquarters barracks on the Swan River, near the Hudson's Bay Company post of Fort Pelly, far to the northeast. After returning to Sweet Grass, the Commissioner set out with "D" and "E" Troops for Swan River. He found the barracks incomplete and, leaving an officer and a Troop in charge, returned for the winter to Dufferin (later Emerson),

the starting point of four months earlier. A round trip of 1,959 miles had been completed without the loss of a single man. Meantime, under the command of the Assistant-Commissioner and guided by an efficient, half-Piegian plainsman picked up at Fort Benton, "B", "C" and "F" Troops pushed northwestward through a country teeming with buffalo to a site on Old Man's River near the foothills of the Rockies. On the way the now deserted Fort Whoop-Up was located. By mid-October the improvised buildings of Fort Macleod—the first outpost of constituted authority in the farthest west—had been hastily begun. A fortnight later, "A" Troop, which had branched northward from a point something less than midway on the main line of march, found temporary quarters at Fort Edmonton the principal Hudson's Bay Company post on the North Saskatchewan River.

The 150 men at Macleod were completely isolated and without hope of reinforcements in case of need. The inexperience of the command, the unknown strength and disposition of surrounding Indians, and the lawless activities of border freebooters involved possibilities of danger.

**Period of Consolidation in the West.**—While preparations for winter were being rushed forward under extraordinary difficulty no opportunity was lost to disperse or bring to account the hardened vendors of 'fire-water', nor to introduce civilized procedure and authority among Indians and freebooters alike. Even after the first few months, Blackfeet, Bloods, Piegiens, Sarcees—the entire Blackfeet Confederacy—as well as Crees, Assiniboines and Saulteaux, were not slow to sense the meaning of the 'scarlet tunic'. In due course, *Maintiens le Droit*—the motto of the Force—was to become a recognized axiom of the plains; to "uphold the right", an open passport to security.

Native chiefs visited the Force, first in curiosity, afterwards in full confidence of Canada's intentions. Barbarity and civilization met on common ground. At last the tall, lithe figure of Crowfoot, the great Okimaw of the Blackfeet and the head of the Confederacy, rode up with impressive dignity; he advanced and cordially shook hands. On that day Canada safely launched her ship of state upon the broad prairie ocean of the West!

It is noteworthy that, in marked contrast to the usual practices in subduing the West, there had been no tendency towards strong-arm methods, only a steady, persistent endeavour to make law-abiding citizens of both white men and natives.

By 1875, the Force had become firmly established. The bordermen responsible for the Assiniboine massacre in the Cypress Hills in the spring of 1873 were rounded up for trial and, close to the scene of their murderous revenge 160 miles east of Macleod, Fort Walsh was built and was soon as busily occupied as the parent post. In the north, Fort Saskatchewan was erected 19 miles from Fort Edmonton and Fort Calgary appeared at the junction of the Bow and Elbow Rivers midway between Edmonton and Macleod. With the coming of spring the Commissioner and headquarters staff had moved to Swan River, having established several subordinate posts towards the east in communication with Winnipeg, from which place a telegraph line was being built.

There still smouldered among many of the native-born the thought that all had not been for the best and several flare-ups occurred. In the summer of 1875, rumours spread that a separate government was in contemplation among the French half-breeds near the Hudson's Bay post of Fort Carlton on the Saskatchewan, just at a time when the Commanding Officer of the Canadian Militia was setting out from Winnipeg on a tour of inspection, particularly of the Force. An escort of

Police, consisting of the Commissioner and 50 troopers, accompanied the Commandant from Swan River. Their arrival at the scene of the threatened disaffection at once made apparent the authority of the Crown. The party proceeded westward, visited Fort Saskatchewan and turned southward to Fort Macleod. Near the latter place the Commandant held council with several hundred Blackfeet under Chief Crowfoot, who expressed great satisfaction with the sudden transformation. Subsequently, the Commandant of Militia reported: "Too much value cannot be attached to the North West Mounted Police; too much attention cannot be paid to their efficiency".

**The Influx of the Sioux.**—In 1876 the Sioux, the most powerful tribe in all the northwestern States, appealed to the Blackfeet to cross the Border and join them in warfare against the United States cavalry regiments. There was promise of booty and a prediction that the combined forces would later turn northward to wipe out the Mounted Police and all white settlers. Though persistently repeated, the request was spurned with the rejoinder that the Blackfeet were on friendly terms with the red-coats and the "Great White Mother". The Sioux threatened to attack the Blackfeet in retaliation for their curt rejection but Crowfoot was informed that in such an event the Mounted Police would fight to protect his realm. Hearing of the dignified old warrior's loyalty, Queen Victoria forwarded her grateful thanks to him.

Soon afterwards, the most ghastly clash between white men and Indians in all the history of the West stirred the civilized and Indian worlds.

Beginning with the Minnesota Indian War in 1862, hostilities had been incessant between the Sioux and the United States Army over a wide extent of the trans-Mississippi plains. In June, 1876, this bitter warfare culminated on the Little Big Horn River, 300 miles south of the Cypress Hills. Probably the largest Indian camp ever assembled on the North American Continent resulted. It was made up of Sioux under the leadership of the already renowned medicine man and necromancer Sitting Bull and the able war chiefs Crow King, Crazy Horse and Gall. Treaties had been disregarded by a feverish white invasion from the East, especially in the Black Hills of Dakota where gold had been discovered. The Sioux, thrown on the defensive, decided upon a stand. As a result a fine military organization under the command of one of the most picturesque and courageous officers—Major-General George A. Custer of the 7th United States Cavalry—was needlessly sacrificed, being wiped out to the last man. A nation's indignation was stirred to the depths and the Sioux, now scattered to the winds, turned northward for refuge, the first band of fugitives crossing the International Boundary to pitch their lodges 100 miles southeast of Fort Walsh on Canadian soil.

A supreme test now confronted the Force. Officers and men were continually called upon, on the one hand, to pacify the Indians of Canada and prevent a junction with the newcomers; on the other, to prevent the Sioux from spreading to the Blackfeet hunting grounds, already being seriously depleted of buffalo. The climax of a difficult position came with the arrival in Canada of Sitting Bull himself and his more immediate following, resulting in a total of Indians from the United States of about 5,600 men, women and children. But again, the loyalty of Crowfoot, coupled with a tireless and tactful handling of the situation by the Force, saved the day.



Four powerful and influential elements now held the stage in and about the region of the Canadian plains—the Hudson's Bay Company along the north, the Sioux under Sitting Bull near the International Boundary, the Blackfeet Confederacy towards the west, and the North West Mounted Police everywhere.

Several months before the coming of the Sioux, because of the general unrest along the Border and immediately south of the line, the precaution was taken of increasing the active strength of Forts Macleod and Walsh by the transfer of a hundred men from the northern posts. Fort Macleod now became the headquarters. Upon 214 officers and men depended the security of life and property along hundreds of miles of wild and treacherous boundary.

From Fort Walsh and a sub-post at Wood Mountain near the camp of the Sioux wanderers, the utmost vigilance was maintained. Warnings were given Sitting Bull and his following that the law must be adhered to during their sojourn in Canada. Meanwhile, governments were intensely occupied in an attempt to smooth out the difficulties. United States commissioners visited Fort Walsh to negotiate with Sitting Bull for his peaceful return to his own soil but, to the chagrin and disappointment of the officers on both sides, he showed no intention of re-crossing the International Boundary.

Shortly after the establishment of Manitoba in 1870, treaties had been entered into with the Indians adjacent to the Red River who had surrendered large portions of territory to the Crown. The Confederacy still held the country bordering the foothills thus leaving about 50,000 square miles, occupied by the Blackfeet, Bloods, Piegans and Sarcees, to be dealt with. The aim of the North West Mounted Police was to reach a legal and lasting understanding with Crowfoot and to unburden the country of Sioux aliens.

The Government early in 1877 decided that there should be no further delay in bringing the entire country within the legal scope of the administration. The Lieutenant-Governor of the Northwest Territories and the Commissioner of the North West Mounted Police were nominated to enter into negotiations with Crowfoot and his brother chiefs. A great meeting took place at the Blackfeet Crossing on the Bow River east of Calgary. At this last great assemblage of barbaric splendour, details of the most important Indian treaty in Canadian annals were agreed upon. After signatures had been affixed by the representatives of the Government and the Indian dignitaries, Chief Crowfoot testified in the following words to the trust his people placed in the North West Mounted Police: "The advice given me and my people has proved to be very good. If the Police had not come to this country where would we all be now? Bad men and whisky were killing us so fast that very few of us would have been left to-day. The Police have protected us as the feathers of the bird protect it from the frosts of winter". With the signing of this treaty, complete sovereignty of the Canadian West passed to the Dominion Government.

**The Coming of the Settlers.**—The transition from buffalo ponies to ploughshares in the West after 1873 was carried out almost wholly under Mounted Police surveillance and guidance and on the plains, from Manitoba to the Rockies, the laws of the Dominion or, as the Indians so often termed them, "the words of the Great White Mother" were thenceforward almost entirely administered by the Force. On innumerable occasions the red-coated riders showed great versatility in the performance of their duties. There were prairie fires to be battled; smuggling, especially of whisky, to forestall; customs dues to be collected; victims of winter blizzards to be succoured; starvation and other forms of privation to be



overcome; illnesses and accidents innumerable to be treated; weddings and funerals to be arranged; mails to be carried; insane persons to be taken in; lost travellers to be found; stolen stock to be returned to rightful owners; cattle- and horse-thieves, gamblers, murderers—all who participated in major crimes—to be run down; and, as settlement spread, mining, lumber and railroad construction camps to be kept under strict observation.

In 1879, Fort Walsh became the headquarters of the Force and no more picturesque pages appear in western history than those which, for the following few years, portray the change from the old order to the new in and about the Cypress Hills. By no means the least onerous duty at Fort Walsh was to see that Sitting Bull's Sioux did not use Canada as a base of operations against a friendly country, but one in which an almost continuous condition of Indian warfare prevailed.

In 1881, through the efforts of the Police and, not the least, by the sagacity of a prominent French-Canadian trader in the Wood Mountain country, the Sioux were prevailed upon to surrender to the United States authorities. The border posts of Macleod and Walsh gradually became less important and it devolved upon the Force to move the various Indian tribes to allotted reserves well away from the Boundary. Late in 1882 a new headquarters post was constructed near Pile of Bones Creek on the Canadian Pacific Railway at a point henceforth to be called Regina, and soon afterwards the personnel at Fort Walsh were transferred northward to Maple Creek also on the transcontinental track. The strength of the Force was increased from 300 to 500 and, an important innovation, a training depot for recruits was established at Winnipeg (later transferred to Regina).

**The Railway Building Period.**—When British Columbia entered Confederation in 1871, the Dominion Government guaranteed to construct a railway linking east and west. The work was begun in 1875 but the line through to the Pacific Coast was not completed until 1885. The building of this railway across the plains created many problems. The coming of some 4,000 labourers, many of them rough characters, created much ill-feeling among the Indians. There were strikes among railway labourers to be settled but, to the credit of the Force, general order prevailed. The red-coated police were even called upon to act as railway mail-clerks. New-comers were met by a strong, efficient and helpful administration. At Macleod, Calgary, Edmonton, Maple Creek, Battleford, Regina and other points, villages and towns were developing and the need for enforcement of law and order became greater and more difficult.

**The North-West Rebellion.**—After the once-dominant Blackfeet Confederacy had accepted the white man's mode of life things moved smoothly for a time though, with the disappearance of their means of livelihood, the transition from the untrammelled life of the buffalo pastures to the distasteful restrictions of the settlements and reservations was hard on Indians and half-breeds. Famine at times stalked among the native camps, attended by rampant theft and cattle-killing, but rations of beef and flour served to stay many a warlike outbreak. To the north, Crees and Assiniboines became restive. Half-breeds on the Saskatchewan, as on a former occasion on the Red River, resented the invasion of their territory by easterners. Soon there were rumblings of an approaching storm.

In the early summer of 1884 the Police detachment at Battleford first gave warning that the half-breeds of the district were demanding redress of alleged grievances. Later it was reported that Louis Riel, the leader of earlier Red River troubles, had appeared on the scene and that meetings had been held in the

settlements of Prince Albert and Duck Lake. The unrest was intensified throughout the summer and autumn of 1884. The Crees, under Chiefs Poundmaker and Big Bear, became doubly aggressive. A small Police detachment at Prince Albert, an outpost of Battleford, was increased to 21 men. Indignation meetings continued throughout the following winter. The little Police outpost at Duck Lake reported that serious trouble was inevitable. It was learned that the half-breeds had invited several bands of Cree Indians to meet at Duck Lake in the spring of 1885. A Cree chief visited the Blackfeet with exaggerated promises of great reward should the Confederacy see eye to eye with Crees and half-breeds.

On Mar. 13, 1885, Battleford reported that a rebellion was likely to break out at any moment and that the Indians would join the half-breeds. The northern detachments had to be reinforced. The Commissioner received orders to proceed from Regina northward with all available men. Accompanied by four officers, 86 non-commissioned officers and men, and 66 horses—a small force against hundreds of disgruntled natives—he made a forced march in bitter weather. Adroitly slipping past the insurgent outposts, the column reached Prince Albert learning on the way that looting had begun and that attacks on Prince Albert and Fort Carlton were imminent. By the time Fort Carlton was reached hostilities had begun. There had been a severe clash near Duck Lake on Mar. 26, between the Police, who had been joined by some Prince Albert volunteers, and a large body of half-breeds and Indians. In the face of overwhelming numbers, the Police had been thrown back with loss of life and from then on the North-West Rebellion was in full swing. Every town, city and hamlet in Canada from coast to coast was aroused by the news. A call to arms was made and for several months the Force, in conjunction with regiments from both Eastern and Western Canada, played a difficult part. The Blackfeet remained loyal and, with the defeat of the rebels, the rebellion came to an end on May 16, 1885.

The North West Mounted Police reassumed responsibility for law and order and the exercise of general jurisdiction throughout the West. To meet the demands upon it, the Force was increased to 10 Divisions and a strength of 1,000 rank and file distributed at Regina, Maple Creek, Medicine Hat, Swift Current, Moose Jaw, Broadview, Moosomin, Whitewood, Fort Qu'Appelle, Moose Mountain, Shoal Lake, Prince Albert, Calgary, Battleford, Lethbridge, Edmonton, Fort Saskatchewan, Fort Macleod and Chief Mountain. No portion of the plains remained beyond the reach of the law and, to assist in encompassing isolated and distant tracts, a number of Indians and half-breeds were employed as trailers and scouts.

**Extension of Activities, 1885-99.**—A period of rapid change and development of the West followed. Immigration increased; new settlements and mushroom villages sprang up; wheat-farming supplemented the cattle industry. The healing of scars remaining from the rebellion constituted no small part of the work of the Force and systematized patrols were begun, radiating from strategically established detachments or sub-posts.

A patrol was stationed in southern Manitoba, another near the foot of Lake Winnipeg, while over the mountains, in response to complaints that the Kootenay Indians were opposing miners and settlers coming in over the Walla Walla Trail, Fort Steele was erected. Many Indians turned to farming and ranching under Government instructors but the young braves of the Confederacy displayed a preference for horse stealing and cattle rustling. Everything was done to help, direct

and influence the multiplying citizenry of the plains. Branch railways had begun to appear. The entire west was settling down to a more prosaic, if more varied, form of life. So successfully and completely had the Force assumed control that by 1894 its strength was gradually reduced to approximately 800 men.

About this time the North began to come within the orbit of the Force. An outpost was established at Cumberland House, 200 miles down the Saskatchewan River from Prince Albert, and patrols were made into the Peace River District and along the Mackenzie River, far north of Edmonton. In the spring of 1895 the taking of a census throughout the plains was entrusted to the Police; Assiniboia, Saskatchewan and Alberta combined had a population of 65,873 whites and 7,633 half-breeds. During that year and the one following there were ample indications that much remained to be done on the plains before the Indians could be permanently regarded as peaceful wards of the nation.

*The Yukon Gold Rush.*—In 1895 the vanguard of what was to be a feverish stampede of miners and prospectors to the Yukon goldfields appeared and it became obvious that some form of police control was necessary. Leaving Regina, a detachment of 20 selected officers and men struck for the north and after 4,800 miles of travel by steamer up the Pacific Coast and the Yukon River, Fort Cudahy, a trading post at Forty Mile Creek, which then became the most northerly military outpost in the British Empire, was reached. There followed one of the greatest gold rushes in the history of the world, chiefly headed for Bonanza Creek, a fabulously rich placer. Amid a conglomeration of all classes of people, infested with criminal gangs, the little force of red-coated riders struggled to maintain order. Stirring incidents followed one upon another but, owing to strict vigilance and activity, murders and other major offences were surprisingly few.

One of the outstanding chapters in the records of the Force had begun—an epic that called for the utmost in courage and determination.

By the end of 1897 Police detachments in the area consisted of eight officers and 88 men, including dog-drivers. Detachments were placed on the Chilcot and White Horse Passes on the Alaskan Boundary, though the line was of doubtful location, and a patrol went overland from Edmonton taking a year to negotiate 1,600 miles of forest and mountain country to reach the goldfields. A Yukon Judicial District was established and the number of Police there was increased until, in 1898, there were 12 officers and 254 men doing duty in the District, despite the fact that the personnel of the Force as a whole had fallen to less than 700. In addition patrols were out in the wilderness of the Peace River and Athabaska Districts.

Headquarters for the Yukon District was Dawson City at the fork of the Klondyke and Yukon Rivers. Skagway, on the United States side of the Yukon-Alaskan Boundary, had earned the title of "the roughest place on earth". In the face of the most exacting conditions the Police prevailed, often carrying their operations across the Boundary with the tacit approval of the United States authorities. In 1898 Yukon was constituted a separate territory by Act of Parliament, under a Commissioner and Council of six members and, realizing that a tremendous task had fallen to the Police, the Government sent a special force of 200 men—drawn from the permanent soldiery of Canada—to assist until conditions improved. The population had reached approximately 20,000. The duty of carrying the mails to the scattered gold camps was undertaken by the Police, 64,000 miles being covered in a single year in the performance of this service. Meantime,



patrols using boats and dog teams branched out to Peace River, Lesser Slave Lake, Fort Resolution and Fort Simpson. At the end of the year there were 830 of all ranks in the Force.

In 1899 the South African War broke out and 245 members of the Force who were granted leave of absence enlisted in the 2nd Canadian Mounted Rifles and the Strathcona Horse. Many honours, including the Victoria Cross, were won by them. After the War, not a few seasoned westerners retired.

During the post-war period thousands of settlers were streaming westward and, within a short time, 300,000 people, most of whom were inexperienced, took up prairie homesteads. The annals attest to the adventure, hardship and dogged perseverance of the "Riders of the Plains". The modern period had begun.

**The Modern Period.**—Events followed upon events in the building up of the Dominion and the field of usefulness of the Force was continually broadened. In 1901 a Yukon census was taken, showing over 16,000 whites; the strength of the Yukon Detachment was increased to about 300. In remote portions of the north, the sphere of contact was extended into the wilderness. By 1903 several posts were opened in the sub-Arctic, including Cape Fullerton, McPherson and Herschel Island, the distribution of Police personnel now extending from the International Boundary to the Polar Sea and from Hudson Bay to the Alaskan Border. The records of this period display a splendid, if at times tragic, devotion to duty, as in the case of the following brief scrawl found in the scarlet tunic of a young constable who had perished in carrying despatches over difficult country through a murderous winter storm: "Lost, horse dead. Am trying to push ahead. Have done my best". The profound respect for the Force that had grown up with the years received official recognition in 1904, when the prefix "Royal" was bestowed by King Edward VII to mark the brilliant and steadfast services rendered; the Earl of Minto became the first Honorary Commissioner.

By 1904 there were eight Divisions, each with a headquarters post, embracing 84 detachments. The work was widely scattered, for there were now 350,000 people in the entire field of operations. British rights to the Arctic Archipelago had been transferred to Canada in 1880 and, early in the twentieth century, whalers and Eskimos in Hudson Bay and the Arctic had made the acquaintance of the Mounted Police. In 1905 the Provinces of Saskatchewan and Alberta were created to form with Manitoba a triple division of the plains, but the Force continued its duties with the Provincial Governments sharing in the cost. The Mounted Police had virtually raised the new Provinces to maturity. As evidence of the distances patrols often had to travel at this time in order to establish Canadian jurisdiction and become familiar with conditions of life, the following is related from the records: An Inspector, with a Corporal and three Constables, leaving Fort Saskatchewan on a morning in early June, 1908, headed northward to Fort Resolution on Great Slave Lake, crossed the vast, unfriendly wilderness to Hudson Bay, employed Eskimo dogs to Churchill, and eventually reached Lake Winnipeg in the following spring, a distance travelled of 3,347 miles.

The perpetrators of 44 murders were brought to justice within a period of 12 months, and the Commissioner pleaded for more men. The call was promptly met and, with the total strength, all ranks, at 763, two new detachments were established in Yukon, two in the Mackenzie River District, one on Hudson Bay and 20 at various other locations.



In 1911, Canada's red-coated troopers were the cynosure of millions of eager eyes as, with their matchless horses, they shared in the Guard of Honour at the Coronation of His Majesty King George V, at London.

**The Period of the First World War.**—Early in the War of 1914-18, the strength of the Force was increased to 1,268, but enlistments in the Armed Services soon left the strength well below the authorized number. In 1917 the Force was relieved of many of its duties in Saskatchewan, Alberta, and northern Manitoba, in order to give more effective attention to 1,900 miles of International Boundary as well as to centre attention on the alien population. The strength was allowed to fall to 656 but, despite this reduction, 26,356 patrols were made covering more than 800,000 miles. Intensive work was being done in the north under most difficult conditions at a time when British Armies were making a desperate stand in France. So general had been the desire among the men to enlist for overseas service, it became necessary for the Prime Minister to point out that the organization was more essential than ever. It was not until 1918 that the Government consented to the Police leaving for active service, when what was termed "A" Squadron embarked for France and "B" Squadron went to Siberia. So heavy were the demands on the Force that, in spite of the recruiting of several hundred additional men, the strength fell to 303—practically down to the number of the "Originals" who had struck across the plains in 1874. The Government then resolved upon a new and permanent establishment, an extension of jurisdiction and a strength of 1,200.

In 1918, the Royal North West Mounted Police was assigned the duty of enforcing Dominion legislation for the whole of Canada west of Port Arthur and Fort William. An extension of governmental activities made it obvious that the enforcement of Dominion statutes throughout Canada must be the responsibility of a Dominion Force and, therefore, the jurisdiction of the Royal North West Mounted Police was extended to the whole of Canada early in 1920. In that year, the name of the Force was changed to the Royal Canadian Mounted Police and the former Dominion Police, with Headquarters at Ottawa, whose duties were largely connected with guarding public buildings in that city and the Canadian Government dockyards at Halifax, N.S., and Esquimalt, B.C., were absorbed by the Royal Canadian Mounted Police. New detachments were established at Port Burwell on an island in Hudson Strait and at Pond Inlet in the Eastern Arctic.

**The Broadening of Duties During the Inter-War Period.**—The strength of the Force at the time of the 50th anniversary in 1923 was 1,148. The same year, a detachment was established at Craig Harbour in Ellesmere Land—then the nearest British post to the North Pole; the location of other detachments followed throughout the North. Famous Arctic patrols that added to the lustre of the history of the Mounted Police were made in 1923-24. A 'farthest' post was established on Bache Peninsula in the remote North in 1926. Patrols entered Coronation Gulf and the Anderson River in the Arctic in 1929-30. Like the red man of the plains, the Eskimo accepted the firm but co-operative hand of authority.

The depression years following 1930 constituted a period of consolidation for the Force: this period extended until the outbreak of war in 1939. The field of responsibility was rapidly expanded outside the normal realm of police duty and the Force was fully modernized. In the Provinces of Alberta, Manitoba, New Brunswick, Nova Scotia, and Prince Edward Island the Provincial Police were replaced by the R.C.M.P. In 1932, the duties of the Preventive Service of the

Department of National Revenue were transferred to the Force. During this period, a Royal Canadian Mounted Police Museum was established at Regina, Sask., and the first copy of the R.C.M.P. *Gazette* appeared in January, 1937, to be continued from that date forward. The year 1937, was also marked by the establishment of a Scientific Laboratory at Regina and, two years later, a similar one was organized at Ottawa (Rockcliffe), Ont.

As early as 1932 the Marine Section had become a constituent part of the Force in connection with the Preventive Service; co-operation was begun with the United States Coast Guard, and an intensive war against smuggling of all kinds was waged, including curtailment of traffic in opium and other narcotics on the Pacific Coast. The Finger Print Section, centralized at Ottawa, was enlarged and extended elsewhere. In the course of law-enforcement and other duties, Police motor-cars covered 7,000,000 miles in 1936. To offset smuggling on the Atlantic Coast, two new fast cruisers, the *Macdonald* and the *Laurier*, were constructed and put into operation.

Regular annual patrols from the permanent police stations located throughout the Northwest Territories and the Arctic Archipelago became a firmly established routine in the inter-war period. Thereby some degree of governmental supervision was extended to the Eskimo and Indian populations and a measure of justice carried to the Far North. Censuses of the native populations were made by the Police and the official reports made by the officers in charge of the posts. These, together with the regular Annual Reports of the R.C.M.P., provide a valuable backlog of information regarding the people and the resources of Northern Canada. In the Prairie Provinces, especially Saskatchewan, where the depression struck with devastating force, the responsibilities of the R.C.M.P. were particularly heavy at this time.

**The Period of the Second World War.**—In the inter-war period valuable records had been built up and a good deal of survey work of various kinds had been undertaken by the Force. As a result, when war was declared in 1939, potential enemies were very quickly rounded up and protective measures were immediately adopted to guard government properties, canals, dockyards and vulnerable points across the country. Nearly 2,000 special constable guards, mostly veterans of the First World War, were enlisted to assist in these guard duties. Furthermore, manufacturing industries were given advice regarding the protection of their properties from sabotage.

Soon after the outbreak of war, the Royal Canadian Mounted Police organized from its own strength the First Provost Company for the Department of National Defence, which was almost immediately sent overseas. By Mar. 31, 1940, it consisted of 125 officers and men and was reinforced later, its highest strength being reached at Mar. 31, 1942, when it numbered 195.

The new Federal Government Departments that came into existence in the early months of the War and the large number of regulations authorized by the Government required the active attention of the Force. Additional duties related, among other things, to foreign exchange control, checking and reporting on personnel of all kinds for the Government and for private industries, fingerprinting of innumerable persons, anti-sabotage activities, assistance in air-raid precautions, enforcement of Defence of Canada Regulations, confiscation of firearms and explosives in the possession of aliens until the close of the War and re-registration of firearms under the Criminal Code. There was also a great increase in the work of the Intelligence

Branch. With the introduction of rationing the appearance of the 'black market' added another burden to an overworked Force which was not permitted to secure recruits until the end of hostilities.

When the Japanese entered the War on the side of the Axis on Dec. 7, 1941, and the removal of the Japanese from the British Columbia coast was decided upon, it was necessary to extend the scope of the registration of enemy aliens. At that time, too, the Northwest Territories and Yukon assumed new importance: the United States Government undertook construction of the Alaska Highway for military reasons; a pipeline from Norman Wells to Whitehorse was laid down; airfields were constructed; and the population of Whitehorse alone passed the 10,000 mark. In these circumstances it was necessary to increase the number of detachments and the personnel in these areas, a step which could be taken only by withdrawing needed strength from less important areas.

At the outbreak of the Second World War, the personnel and ships of the R.C.M.P. Marine Section were transferred to the Royal Canadian Navy for war duty, as previously arranged, and the small Aviation Section of the Force was transferred to the Royal Canadian Air Force. At the end of hostilities the personnel and equipment were returned to the Force. New vessels and aircraft were secured for the re-formation of up-to-date units. One vessel of the R.C.M.P., while not used in the prevention of smuggling and consequently not a part of the Marine Section, the *St. Roch*, has been employed for many years as a floating detachment in the Canadian Far North and is used to replenish the supplies of the Western Arctic detachments. It has the distinction of being the first ship to make a west to east voyage, as well as the return journey, via the Northwest Passage from the Pacific to the Atlantic. Leaving Esquimalt, B.C., on June 9, 1940, the *St. Roch*, sailing to the south of Victoria Island, reached Sydney, N.S., on Oct. 8, 1942. The return voyage was begun from Dartmouth, N.S., on July 22, 1944, and the vessel docked at Vancouver, B.C., on Oct. 16, 1944.

At the end of the War many, though not all, of the war duties of the Force were relinquished and by Mar. 31, 1946, the Special Constable Guard of veterans had been discharged.

During the War the Northwest Territories and Yukon assumed a new importance. The United States Government, with the consent of the Canadian Government, undertook the construction of the Alaska Highway for military reasons, and a pipe line from Norman Wells to Whitehorse was laid down. In addition, airfields were constructed and the population of Whitehorse alone passed the 10,000 mark. In such circumstances, it was necessary to increase the number of detachments in those areas. This highway is now known as the Northwest Highway System and is patrolled in large measure by the R.C.M. Police.

**Post-War Developments.**—Since the War the Force has been able to give some attention to the important field of prevention in relation to crime and delinquency.

At the present time the Force has two twin-engine Beechcraft, fully radio-equipped, for rapid transportation of personnel when required, an amphibious Grumman Goose to provide coverage for coastal or inland lake demands, a Norseman for use primarily in the Far North, a Cornell Trainer and a Stinson for training purposes. These aircraft are situated to the best advantage so that experts from crime laboratories may be quickly conveyed to scenes of crime and other experts to points



to give evidence, etc. They are also used in the inspection of detachments and for similar duties and, in that way, save a tremendous amount of time. The Aviation Section has one officer and 12 other ranks at present.

The *Gazette* gives up-to-date information regarding wanted and missing persons and includes instructive articles on many phases of police work. It is distributed to all police forces throughout the Dominion. Courses of instruction and training given at the R.C.M.P. Colleges are open to all police officers in Canada. These facilities, together with the R.C.M.P. museum, crime laboratories and Finger Print Section, which has extensions in various centres across the Dominion, are not merely signs of the progressiveness of the Force but assist materially in the prevention, detection and suppression of crime throughout the length and breadth of the Dominion.

The Force's "Police and Youth Movement" is an effort not only to establish better relations between the youth of the country and members of the Police Force, but to have the young people look upon the policeman as a friend: to inculcate the advantages of our free way of life, to assist people clearly to realize the privileges of democracy, to appreciate them and, if necessary, be willing to defend them. To this end specially trained officers of the Force visit schools and other centres where young Canadians congregate and, through lectures and the narration of actual experiences, they explain the work of the Police and the principles upon which it is based. The movement has wide ramifications and, handled wisely with proper direction and control, can be a potent force in lowering the rate of juvenile delinquency.

*Present Status.*—The Force as organized in 1949 is controlled and administered by a Minister of the Crown (at present the Minister of Justice). Its officers are commissioned by the Crown and for many years have been selected from serving non-commissioned officers.

In all, the Force has responsibility for the enforcement of almost 50 Federal Acts including the Indian Act. Throughout Canada it is specially empowered to deal with infractions against smuggling by sea, land and air. It enforces the provisions of the Excise Act, and is responsible for the suppression of traffic in narcotic drugs. It also assists many Departments of the Federal Government in administrative duties and is responsible for the protection of Government buildings and property and some of the more important dockyards, and has extensive fire prevention duties, especially at Ottawa. Furthermore, it undertakes secret and security services for the Federal Government. The R.C.M.P. is the sole police force operating in the Northwest Territories and Yukon. In addition to Federal duties, the Force has had agreements since 1928 with the Province of Saskatchewan, and since 1932 with the Provinces of Alberta, Manitoba, New Brunswick, Nova Scotia and Prince Edward Island, whereby the services of the Royal Canadian Mounted Police can be secured to enforce provincial laws and the Criminal Code in rural districts upon payment for such services. During recent years, the Force has also entered into agreements for the policing of certain cities, towns and municipalities within the six provinces mentioned above. There are at present over 70 such agreements in existence.

The Force is divided into 14 Divisions of varying strength, including the Marine Division, distributed over the entire country. The term of engagement for recruits is five years, and the minimum age for a third-class constable is 21 years.



Recruits are selected by a Personnel Section and are trained at Regina, Sask., and at Rockcliffe, Ont. Police Colleges are also maintained at these centres, where courses of training and instruction are given to keep the Force abreast of the latest developments in criminology. In 1937, a Reserve was established which now numbers over 500: units are located principally at such large centres as Montreal, Toronto, Winnipeg, Edmonton, Calgary and Halifax, where men can be congregated easily and where instruction can be given in the evenings.

Prospective recruits should apply to:—

(a) The Commissioner, R.C.M. Police, Ottawa, Ont., or

(b) Any Officer Commanding a Division of the R.C.M. Police at the capital of any province in Canada.

Full information regarding requirements for enlistment will be provided.

*Strength of the Force.*—From a total of 300 in 1873, the Force grew to over 4,700 by 1944 and on Mar. 31, 1949, had a strength of 3,438, exclusive of civil servants. It had 862 motor-vehicles, 6 aircraft, 159 horses, 16 police service-dogs, and 281 sleigh-dogs.

The Marine Section, consisting of over 200 officers and men and 21 vessels of various sizes, operates chiefly in the Maritimes but there is a fairly strong unit on the Great Lakes, with smaller strength on the Pacific.

*Newfoundland.*—On Apr. 1, 1949, Newfoundland became the tenth province of Canada and the Royal Canadian Mounted Police extended its jurisdiction, in so far as Federal laws are concerned, to that Province. The former Preventive Service personnel of Newfoundland were absorbed into the Royal Canadian Mounted Police Preventive Service, which Service is already operating around the coast line of the new Province.

## Section 1.—The Royal Canadian Mounted Police

This Section usually outlines the present status of the Force, its organization and control, duties, services to other police forces and the assistance given in developing a healthful outlook toward law and order and responsible citizenship. These matters have all been covered in the preceding special article and, therefore, the standard material is omitted for this year.

## Section 2.—Provincial Police Forces

**Quebec Provincial Police Force.**—The Quebec Provincial Police Force is responsible for upholding law and order over the whole territory of the Province, from the provincial boundary between Ontario and Quebec to the Magdalen Islands in the Gulf of St. Lawrence.

This Force, composed of about 700 men, is in charge of a Director who acts under direct orders from and is responsible to the Attorney-General of the Province.

To facilitate operations, the territory is divided into two almost equal parts designated as the District of Montreal and the District of Quebec. The Director has his office at Montreal and an Assistant Director in the city of Quebec. Working under these Directors are two deputies and an Inspector General.

The Police Force is divided into three sections: the detective corps, the constabulary and the traffic officers, each of which, in the two Districts, is in charge of a captain supported by a number of lieutenants and sergeants. This Police Force,

which has for years enjoyed an enviable reputation for the successful policing of Quebec's highways and for its efficiency in solving crimes, has been in course of reorganization for the past three years. During this time, the highway motorcycle patrol has been gradually replaced by a fleet of automobiles which have proved much more efficient, especially during the winter months.

A province-wide frequency modulation radio-communication system has been established at Montreal. A main station, operating on the top of Mount Royal, directs radio-equipped cars within a radius of between 60 and 80 miles around Montreal, and similar stations operating from the cities of Quebec and Three Rivers direct the mobile units operating in their respective areas. Sub-stations operate at each of the eight bridges giving access to or exit from the city of Montreal itself and a number of cars, all equipped with frequency modulation three-way radio units, patrol the surrounding country day and night.

The Quebec Provincial Police Force, well-trained and alert, is in a position to provide the citizens of the Province with the protection they have a right to expect from it.

**Ontario Provincial Police.**—The Ontario Provincial Police is maintained by the Government of the Province of Ontario under the Attorney-General's Department. The Force is responsible for law enforcement in the rural and unorganized parts of the Province, and in certain municipalities by contract.

History relates that in July, 1875, John Wilson Murray was appointed to act as "Detective for the Provincial Government of Ontario" to pursue criminals and "run them down" in their havens of refuge. Murray performed his varied duties under the direction of Sir Oliver Mowat, the Attorney-General of the Province. At the time of Confederation and the first session of the first Parliament of Ontario in December, 1867, there were a number of rural or Provincial Police. These officers were unpaid and if any remuneration was received for their services it was derived through the fee system.

In 1877 a major reform occurred when under the Constables Act (R.S.O. 1877, c. 72) the necessity for giving certain constables jurisdiction throughout the Province was recognized. County judges were authorized to allocate Provincial Constables to every county and district in Ontario.

Later, the opening up of the mining areas in the north of the Province and the accompanying lawlessness brought to the fore the realization that more adequate law-enforcement measures were a necessity. Consequently, an Order in Council dated Oct. 13, 1909, (confirmed by 10 Edw. VII, c. 39) was passed providing for the establishment of the "Ontario Provincial Police Force", to be composed of a Superintendent and such inspectors and constables as were deemed necessary. The officers were stationed throughout the northern portion of the Province and at all border points in southern Ontario. The Force was completely reorganized in 1921, under the authority of the Ontario Provincial Police Act, the appointment of a Commissioner of Police for Ontario was made and the strength of the Force considerably increased.

The Constables Act was amended in 1929 with a view to establishing closer relationship and co-operation between the Provincial Police Force and County Constabularies. Twenty-eight counties took advantage of this legislation and a member of the Ontario Provincial Police was appointed as Acting High Constable in each of these counties. In 1929 also, an Ontario Provincial Police Training School was established at General Headquarters for the tuition and guidance of recruits.

In March, 1930, the control and administration of the officers who had been enforcing the Highway Traffic Act under the supervision of the Department of Public Highways was transferred to the Department of the Attorney-General under the Commissioner of the Ontario Provincial Police. A combined Provincial and Municipal Police Training School was inaugurated at Toronto in March, 1935. This school provides advanced training in medical, legal, scientific and technical activities for provincial and municipal police officers.

By the Police Act, 1946, proclaimed Feb. 1, 1947, all former legislation and amendments dealing with constables were repealed. Under this Act, the duties and responsibilities of police forces are, for the first time in the history of the Province, clearly defined. Up to May 5, 1949, 72 municipalities have availed themselves of the provisions of the Police Act for the policing of their municipalities by the Ontario Provincial Police.

At present the Force, with a strength of approximately 1,017, consists of a General Headquarters at Toronto and 16 Districts with headquarters at Chatham, London, Dundas, Niagara Falls, Aurora, Mount Forest, Barrie, Peterborough, Belleville, Perth, Cornwall, Haileybury, Sudbury, Cochrane, Port Arthur and Kenora. Each District has detachments adequate to meet law-enforcement requirements. A Criminal Investigation Branch of the Force, under the command of a Chief Inspector, is maintained at Toronto. This Branch investigates crimes of a major nature. The installation of one of the largest police frequency modulation radio systems in the world has placed at the command of the police a most efficient method of combating every type of lawlessness.

There were in operation in 1949 41 fixed stations and 300 two-way radio cruisers. The 250-watt stations at District Headquarters are open 24 hours daily and many of the cars are on continuous round-the-clock patrols.

**British Columbia Provincial Police.**—The organization of a permanent police force in British Columbia followed the influx of gold seekers on the Fraser River in 1858. Prior to that time police protection on Vancouver Island had been of a volunteer nature, the settlers themselves forming posses to apprehend flagrant law breakers.

On July 7, 1858, a Commissioner of Police was appointed together with a chief constable, a sergeant and four or five constables and a staff to maintain a gaol for Vancouver Island. The Governor was alive to the necessity of a police force for the gold-field area of British Columbia and Gold Commissioners were appointed under the Goldfields Act to each of whom were assigned six police officers. Instructions, however, came from the Governor.

The Commissioner continued the supervision of the police on Vancouver Island, acting at the same time as Magistrate for the community at Victoria.

It will be seen from these regulations that control of the police was somewhat divided but in 1866 the Crown colonies of Vancouver Island and British Columbia were united and the police came under one head at Victoria. New territory was opened up and local justices of the peace were empowered to swear in special constables in cases of necessity.

In these early days the duties of a constable were interwoven with the tasks of other Government branches such as the collection of revenue and other offices unrelated to law enforcement. As time went on, however, the duties gravitated to full-time police service and police districts were established under the control of a



Chief Constable who, in turn, was responsible to the Chief Inspector (later the Superintendent). With minor changes, this system continued until 1923 when, by the Police and Prisons Regulations Act 1923, semi-military ranks were adopted and the Province was divided into Divisions, Districts and Detachments for administration purposes. On Jan. 1, 1949, the Province was divided into 12 police Districts, each under the command of an Officer. Previously, there had been five Divisions, sub-divided into Districts and Detachments. Under the new system—and to keep abreast of changing conditions—District Officers Commanding, with less territory to supervise, are able to devote full-time attention to field work and supervision of police Detachments. This has greatly increased efficiency and has speeded up communication between Detachments and District Headquarters where advice and instructions can be quickly issued by the Officer Commanding.

The present strength of the Force is 490 all ranks.

A Criminal Investigation Branch is operative at Headquarters together with a training school. Shortwave radio is used extensively connecting 23 key stations throughout the Province and eight police boats patrolling the coast are also equipped with shortwave and voice transmission.

Provincial Police also assist Federal as well as Provincial Departments seeking their aid and municipalities in 1925 were afforded the opportunity to contract Provincial Police Protection; 45 cities have signed these contracts.

The Provincial Police contributes invaluable help to youth activities. Talks are given on such subjects as behaviour, good citizenship, traffic safety, firearms and explosives, camping and camp precautions, first aid, etc. Voluntary assistance is also rendered to promote sports and games, and youth organizations call upon individual members of the Provincial Police for instruction.

Police vehicles on the Lower Mainland and southern Vancouver Island are all equipped with three-way radio. New units are either in the process of installation or planned in many other sections of the Province.

### Section 3.—Municipal Police Statistics

In 1947 police statistics were collected from 191 urban centres of 4,000 population or over. The aggregate population of these centres was 5,116,427 (1941), the total number of policemen in 1947 was 7,413 or one for every 690 of the population.

A total of 589,569 offences were reported to the police, 145,887 arrests were made and 389,054 summonses were issued. More automobiles were reported recovered (8,871) than stolen (8,744). This happens when the stolen vehicle is recovered before the owner has missed it or a lost car of a previous year is found in the current year. Of the 14,945 bicycles reported stolen, 12,550 were found. The value of other stolen goods reported was \$5,640,133 and the value of stolen goods recovered \$2,649,183.

In the 72,271 motor-vehicle accidents investigated, 534 persons were killed and 17,010 injured. In other accidents reported, 599 persons were killed and 8,826 injured. Persons given shelter in police stations numbered 60,358 and 7,284 missing persons as well as 9,963 stray children were found.



# 1.—Summary Police Statistics, by Urban Centres of 10,000 Population or Over and Totals of Urban Centres of 4,000 Population or Over, 1947

Province and Urban Centre	Population 1941	Police on Force	Offences Known to the Police	Prosecutions	Arrests	Summons
	No.	No.	No.	No.	No.	No.
<b>Prince Edward Island—</b>						
Charlottetown.....	14,821	15	1,482	1,282	823	459
<b>Totals of 10,000 or Over.....</b>	<b>14,821</b>	<b>15</b>	<b>1,482</b>	<b>1,282</b>	<b>823</b>	<b>459</b>
<b>Totals of 4,000 or Over.....</b>	<b>19,855</b>	<b>21</b>	<b>1,938</b>	<b>1,705</b>	<b>1,175</b>	<b>530</b>
<b>Nova Scotia—</b>						
Halifax.....	70,488	120	4,782	4,424	2,584	1,582
Sydney.....	28,305	34	2,104	1,766	1,690	198
Glace Bay.....	25,147	20	1,554	675	675	15
Dartmouth.....	10,847	11	740	505	355	150
Truro.....	10,272	7	1,266	1,177	1,177	20
<b>Totals of 10,000 or Over.....</b>	<b>145,059</b>	<b>192</b>	<b>10,446</b>	<b>8,547</b>	<b>6,481</b>	<b>1,965</b>
<b>Totals of 4,000 or Over.....</b>	<b>211,651</b>	<b>231</b>	<b>14,979</b>	<b>11,527</b>	<b>8,602</b>	<b>2,633</b>
<b>New Brunswick—</b>						
Saint John.....	51,741	74	3,904	3,904	3,616	288
Moncton.....	22,763	34	2,691	1,789	1,323	466
Fredericton.....	10,062	20	1,097	1,097	769	339
<b>Totals of 10,000 or Over.....</b>	<b>84,566</b>	<b>128</b>	<b>7,692</b>	<b>6,790</b>	<b>5,708</b>	<b>1,093</b>
<b>Totals of 4,000 or Over.....</b>	<b>107,000</b>	<b>149</b>	<b>9,486</b>	<b>8,314</b>	<b>6,585</b>	<b>1,491</b>
<b>Quebec—</b>						
Montreal.....	903,007	1,654	72,051	72,051	22,691	49,360
Quebec.....	150,757	197	7,152	4,518	2,454	2,064
Verdun.....	67,349	67	4,552	3,852	792	1,339
Three Rivers.....	42,007	86	1,811	1,811	1,763	48
Sherbrooke.....	35,965	46	1,474	1,439	1,101	338
Hull.....	32,947	43	4,052	3,213	790	2,423
Outremont.....	30,751	45	3,802	3,802	1,205	2,597
Westmount.....	26,047	42	7,361	3,843	557	3,286
Shawinigan Falls.....	20,325	34	1,021	847	156	90
Lachine.....	20,051	27	391	366	314	179
St. Hyacinthe.....	17,798	26	343	88	18	..
Valleyfield.....	17,052	26	353	353	36	13
Chicoutimi.....	16,040	18	171	171	119	48
Granby.....	14,197	11	103	129	44	85
Jonguère.....	13,769	1	1	1	1	1
St. Jean.....	13,646	14	77	22	21	5
Joliette.....	12,749	19	102	28	23	5
Thetford Mines.....	12,716	15	403	222	190	32
Sorel.....	12,251	17	120	100	255	..
Lévis.....	11,991	16	580	470	292	110
Cap-de-la-Madeleine.....	11,961	14	100	71	12	..
St. Jérôme.....	11,329	19	191	191	147	44
Drummondville.....	10,555	14	256	168	223	..
<b>Totals of 10,000 or Over.....</b>	<b>1,505,260</b>	<b>2,450</b>	<b>106,466</b>	<b>97,755</b>	<b>33,203</b>	<b>62,066</b>
<b>Totals of 4,000 or Over.....</b>	<b>1,696,155</b>	<b>2,692</b>	<b>125,849</b>	<b>106,519</b>	<b>36,769</b>	<b>67,226</b>
<b>Ontario—</b>						
Toronto.....	667,457	1,161	163,425	156,022	22,425	133,597
Hamilton.....	166,337	195	48,000	45,892	4,140	41,752
Ottawa.....	154,951	199	13,934	10,530	2,418	8,120
Windsor.....	105,311	152	3,916	7,686	2,646	4,073
London.....	78,264	104	5,114	3,839	1,926	1,913
Kitchener.....	35,657	32	6,584	6,584	625	2,494
Sudbury.....	32,203	37	6,379	5,585	2,558	3,027
Brantford.....	31,948	30	4,797	4,407	909	1,264
Fort William.....	30,585	38	2,638	2,445	2,146	299

1 Not reported.

**1.—Summary Police Statistics, by Urban Centres of 10,000 Population or Over and Totals of Urban Centres of 4,000 Population or Over, 1917—concluded**

Province and Urban Centre	Population 1941	Police on Force	Offences Known to the Police	Prosecutions	Arrests	Summonses
	No.	No.	No.	No.	No.	No.
<b>Ontario—concluded</b>						
St. Catharines.....	30,275	38	6,369	5,960	1,034	4,926
Kingston.....	30,126	34	870	1,825	592	..
Timmins.....	28,790	28	2,782	2,254	1,102	1,062
Oshawa.....	26,813	28	3,372	3,032	518	2,514
Sault Ste. Marie.....	25,794	24	2,224	1,736	1,042	565
Peterborough.....	25,350	29	2,120	1,890	788	1,102
Port Arthur.....	24,426	34	2,509	2,699	2,455	244
Guelph.....	23,273	27	2,718	2,595	443	2,323
Niagara Falls.....	20,589	38	1,995	1,906	976	930
Sarnia.....	18,734	22	2,017	1,533	327	1,210
Chatham.....	17,369	23	2,832	2,205	677	1,528
St. Thomas.....	17,132	15	698	2,975	342	383
Stratford.....	17,038	15	1,279	1,149	449	700
Belleville.....	15,710	18	2,849	2,116	971	1,132
North Bay.....	15,599	16	1,163	1,163	619	544
Galt.....	15,346	10	1,100	814	236	578
Cornwall.....	14,117	18	1,275	915	374	485
Owen Sound.....	14,002	11	1,842	1,823	363	1,462
Welland.....	12,500	22	2,466	2,350	280	2,032
Woodstock.....	12,461	14	1,668	1,668	317	316
Forest Hill.....	11,757	19	1,001	1,048	33	999
Brockville.....	11,842	15	1,823	948	458	485
Pembroke.....	11,159	10	1,854	863	530	58
<b>Totals of 10,000 or Over.....</b>	<b>1,742,415</b>	<b>2,456</b>	<b>303,113</b>	<b>288,458</b>	<b>54,719</b>	<b>222,117</b>
<b>Totals of 4,000 or Over.....</b>	<b>2,021,470</b>	<b>2,709</b>	<b>328,255</b>	<b>307,353</b>	<b>60,687</b>	<b>235,964</b>
<b>Manitoba—</b>						
Winnipeg.....	221,960	346	6,028	36,501	5,812	31,943
St. Boniface.....	18,157	18	2,986	2,087	202	1,885
Brandon.....	17,383	17	1,170	520	274	246
<b>Totals of 10,000 or Over.....</b>	<b>257,500</b>	<b>381</b>	<b>10,184</b>	<b>39,108</b>	<b>6,288</b>	<b>34,074</b>
<b>Totals of 4,000 or Over.....</b>	<b>279,759</b>	<b>401</b>	<b>11,671</b>	<b>39,957</b>	<b>6,601</b>	<b>34,610</b>
<b>Saskatchewan—</b>						
Regina.....	58,245	60	6,202	3,948	1,340	2,608
Saskatoon.....	43,027	42	1,195	2,713	1,135	1,520
Moose Jaw.....	20,753	23	1,440	1,260	733	527
Prince Albert.....	12,508	15	1,400	1,111	635	317
<b>Totals of 10,000 or Over.....</b>	<b>134,533</b>	<b>140</b>	<b>10,237</b>	<b>9,032</b>	<b>3,843</b>	<b>4,972</b>
<b>Totals of 4,000 or Over.....</b>	<b>160,639</b>	<b>167</b>	<b>12,609</b>	<b>10,403</b>	<b>4,326</b>	<b>5,792</b>
<b>Alberta—</b>						
Edmonton.....	93,817	131	8,333	3,575	2,461	1,114
Calgary.....	88,904	130	13,020	8,292	3,195	4,077
Lethbridge.....	14,612	18	2,828	1,109	579	511
Medicine Hat.....	10,571	14	1,006	502	261	241
<b>Totals of 10,000 or Over.....</b>	<b>207,904</b>	<b>293</b>	<b>25,187</b>	<b>13,478</b>	<b>6,496</b>	<b>5,943</b>
<b>Totals of 4,000 or Over.....</b>	<b>207,904</b>	<b>293</b>	<b>25,187</b>	<b>13,478</b>	<b>6,496</b>	<b>5,943</b>
<b>British Columbia—</b>						
Vancouver.....	275,353	564	27,105	51,663	10,666	20,529
Victoria.....	44,068	79	17,374	8,341	912	7,362
New Westminster.....	21,967	26	5,725	4,391	766	3,615
<b>Totals of 10,000 or Over.....</b>	<b>341,388</b>	<b>669</b>	<b>50,204</b>	<b>64,395</b>	<b>12,344</b>	<b>31,506</b>
<b>Totals of 4,000 or Over.....</b>	<b>411,994</b>	<b>750</b>	<b>59,595</b>	<b>70,174</b>	<b>14,646</b>	<b>34,865</b>
<b>Grand Totals of Urban Centres of 10,000 Population or Over.....</b>	<b>4,433,446</b>	<b>6,724</b>	<b>525,011</b>	<b>528,845</b>	<b>129,905</b>	<b>364,195</b>
<b>Grand Totals of Urban Centres of 4,000 Population or Over.....</b>	<b>5,116,427</b>	<b>7,413</b>	<b>589,569</b>	<b>569,430</b>	<b>145,887</b>	<b>389,054</b>

## PART V.—PENITENTIARY AND REFORMATORY INSTITUTIONS

### Section 1.—Penitentiary Statistics\*

The Penitentiaries Branch of the Department of Justice is charged with the administration of the various penitentiaries of Canada. Seven institutions are included in the system, the two largest of which are at Portsmouth, Ont., and St. Vincent de Paul, Que.: the other five are at Dorchester, N.B.; Prince Albert, Sask.; Stony Mountain, Man.; New Westminster, B.C.; and Collins Bay, Ont. During the fiscal year ended Mar. 31, 1948, the average daily population of these institutions was 3,851 and the total net cash outlay for the year was \$4,247,884 or \$3.09 per convict per diem, compared with 3,028 average daily population and \$2,689,059 total net cash outlay or \$2.43 per convict per diem for the year 1941.

Female convicts given penitentiary sentences in the different provinces are sent to the penitentiary at Kingston, Ont., where special quarters and staff are maintained for their detention and supervision. Female convicts in custody on Mar. 31, 1948, numbered 74 compared with 43 in 1944 and 46 in 1941.

**Movement of Population of Penal Institutions.**—Penal institutions may be classified under three headings: (1) penitentiaries, with slow turnover, since prisoners have long sentences; (2) reformatory and training schools, also with rather slow turnover; and (3) common gaols, where the turnover is extremely rapid. If the average population for the year be taken as the average of the figures for inmates at the beginning and at the end of the year, and the number discharged as the turnover, the turnover in the fiscal year 1947-48 was: in penitentiaries, 46 p.c.; in reformatory and training schools, 266 p.c.; and in gaols, no less than 1,626 p.c. In dealing with these figures it must be borne in mind that the common gaol population changes from day to day, and is partly made up of accused persons awaiting trial who may be either liberated or sent to a penitentiary or reformatory.

\* Revised in co-operation with the Superintendent of Penitentiaries, Department of Justice, Ottawa.

#### 1.—Population of Penal Institutions, for Twelve-Month Periods (Circa) 1947 and 1948

Year and Type of Institution	In Custody Beginning of Year	Admitted During Year	Discharged During Year	In Custody End of Year
	No.	No.	No.	No.
<b>1947</b>				
Penitentiaries.....	3,362	1,908	1,518	3,752
Reformatory and training schools.....	4,483	10,950	10,852	4,581
Gaols.....	4,185	66,133	66,158	4,160
<b>Totals, 1947.....</b>	<b>12,030</b>	<b>78,991</b>	<b>78,528</b>	<b>12,493</b>
<b>1948</b>				
Penitentiaries.....	3,752	1,867	1,768	3,851
Reformatory and training schools.....	4,659	13,870	13,471	5,058
Gaols.....	4,171	70,086	69,734	4,523
<b>Totals, 1948.....</b>	<b>12,582</b>	<b>85,823</b>	<b>84,973</b>	<b>13,432</b>

Tables 2 to 4 give the more important penitentiary statistics as reported to the Dominion Bureau of Statistics.

**2.—Movement of Convicts in Penitentiaries, Years Ended Mar. 31, 1941-48**

Item	1944	1945	1946	1947	1948
<b>In Custody, Apr. 1</b> .....	<b>2,969</b>	<b>3,078</b>	<b>3,129</b>	<b>3,362</b>	<b>3,752</b>
Received—					
From gaols.....	1,348	1,312	1,579	1,685	1,580
By transfer.....	320	157	206	219	283
By cancellation of ticket-of-leave.....	2	1	—	3	4
Revocation of licence.....	—	—	1	—	—
From Military Authorities (prisoners of war)....	—	—	8	1	—
Paroled for Active Service and returned.....	—	2	—	—	—
Totals, Received.....	1,670	1,472	1,794	1,908	1,867
Discharged by—					
Expiry of sentence.....	928	880	1,014	982	1,089
Transfer.....	320	157	206	219	283
Ticket-of-leave.....	243	320	216	255	333
Deportation.....	10	22	13	9	12
Unconditional release.....	35	15	9	10	—
Death.....	7	11	11	7	14
Pardon.....	9	8	10	3	31
Release to Military Authorities.....	—	2	77	22	4
Release on order of court.....	6	4	3	5	1
Return to provincial authorities.....	2	1	2	5	1
Transfer to Boys' Industrial School.....	1	1	—	—	—
Instructions from Immigration Department.....	—	—	—	1	—
Totals, Discharged.....	1,561	1,421	1,561	1,518	1,768
<b>In Custody, Mar. 31</b> .....	<b>3,078</b>	<b>3,129</b>	<b>3,362</b>	<b>3,752</b>	<b>3,851</b>

**3.—Ages of Convicts in Penitentiaries, as at Mar. 31, 1941-48**

Age Group	1941	1942	1943	1944	1945	1946	1947	1948
Under 21 years....	465	421	447	486	455	452	519	497
21 to 30 "....	1,473	1,283	1,168	1,288	1,386	1,529	1,659	1,660
31 to 40 "....	995	837	705	676	676	750	916	973
41 to 50 "....	477	420	395	398	395	390	404	450
51 to 60 "....	191	191	182	160	152	174	181	180
Over 60 "....	87	80	72	70	65	67	73	91
<b>Totals</b> .....	<b>3,688</b>	<b>3,232</b>	<b>2,969</b>	<b>3,078</b>	<b>3,129</b>	<b>3,362</b>	<b>3,752</b>	<b>3,851</b>

**4.—Convicts in Penitentiaries, Classified by Birthplace, Religion, etc., as at Mar. 31, 1941-48**

Item	1941	1942	1943	1944	1945	1946	1947	1948
	No.	No.	No.	No.	No.	No.	No.	No.
Place of Birth—								
Canada.....	3,010	2,645	2,451	2,599	2,700	2,989	3,301	3,403
British Isles and possessions.....	259	190	163	179	169	143	187	167
Austria and Hungary.....	44	43	37	34	13	14	18	18
Italy.....	32	29	24	15	13	11	8	8
Poland.....	67	54	43	35	34	33	37	36
Russia.....	38	41	37	33	42	30	34	67
Other Europe.....	58	44	49	31	58	43	52	47
United States.....	112	117	111	95	91	83	101	91
Other countries.....	68	69	54	57	9	16	14	14



**4.—Convicts in Penitentiaries, Classified by Birthplace, Religion, etc., as at  
Mar. 31, 1941-48—concluded**

Item	1941	1942	1943	1944	1945	1946	1947	1948
	No.	No.	No.	No.	No.	No.	No.	No.
<b>Marital Status—</b>								
Single.....	2,446	2,154	1,983	1,990	1,987	2,144	2,376	2,360
Married.....	994	878	785	875	936	1,019	1,134	1,237
Widowed.....	143	121	110	120	117	105	105	103
Divorced.....	105	47	40	35	31	29	53	69
Separated.....	1	32	51	58	58	65	84	82
<b>Sex—</b>								
Male.....	3,642	3,195	2,917	3,035	3,077	3,310	3,696	3,777
Female.....	46	37	52	43	52	52	56	74
<b>Religion—</b>								
Anglican.....	513	483	505	506	516	587	710	760
Baptist.....	134	135	126	122	136	122	135	143
Doukhorbor.....	6	4	3	2	19	16	2	59
Eastern religions.....	5	1	1	1	3	1	1	1
Greek Catholic.....	32	33	27	20	11	12	15	11
Greek Orthodox.....	39	40	35	36	27	34	27	35
Jewish.....	62	56	52	55	44	48	63	63
Lutheran.....	81	76	67	62	59	57	54	54
Methodist.....	44	29	34	37	34	28	33	31
Presbyterian.....	358	274	214	233	275	294	287	265
Roman Catholic.....	1,841	1,614	1,473	1,597	1,534	1,705	1,884	1,833
Salvation Army.....	18	17	16	20	21	21	28	29
United Church.....	369	328	302	293	323	309	381	390
Other.....	186	143	115	95	127	129	133	178
<b>Totals.....</b>	<b>3,688</b>	<b>3,232</b>	<b>2,969</b>	<b>3,078</b>	<b>3,129</b>	<b>3,362</b>	<b>3,752</b>	<b>3,851</b>

<sup>1</sup> None reported.

## Section 2.—The Ticket-of-Leave System

The Ticket-of-Leave System is described in detail at pp. 305-308 of the 1948-49 edition of the Year Book.

## Section 3.—Statistics of Corrective and Reformative Institutions

A census of corrective and reformative institutions is taken at five-year intervals, the latest being for June 1, 1946. At that date there were 28 such institutions in Canada, 25 of which reported; one institution in Quebec, one in Ontario and one in Manitoba failed to report. The reporting institutions had a total inmate population of 3,662, of whom 2,930 were males and 732 females. The males were confined in 13 institutions and the females in 12.

**5.—Inmates of Corrective and Reformatory Institutions, by Age Groups, as at June 1, 1946**

Institutions and Age Groups	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Institutions for Males.....	2	1	2	5	1	1	—	1	13
“ for Females.....	2	2	2	3	1	—	1	1	12
Inmates—									
Under 10 years..... M.	23	3	15	22	—	1	—	1	65
“ F.	—	5	7	—	—	—	—	—	12
10-14 “ M.	137	44	361	253	19	20	—	39	873
“ F.	57	31	74	43	10	—	15	7	242
15-19 “ M.	15	12	250	576	28	18	—	34	933
“ F.	39	63	77	93	32	—	16	10	330
20-24 “ M.	—	—	—	436	—	—	—	—	436
“ F.	2	19	—	35	—	—	1	—	57
25-29 “ M.	—	—	—	201	—	—	—	—	201
“ F.	—	9	—	15	—	—	—	—	24
30-34 “ M.	—	—	—	116	—	—	—	—	116
“ F.	1	5	—	17	—	—	—	—	23
35-39 “ M.	—	—	—	92	—	—	—	—	92
“ F.	—	3	—	14	—	—	—	—	17
40-44 “ M.	—	—	—	73	—	—	—	—	73
“ F.	—	1	—	15	—	—	—	—	16
45-49 “ M.	—	—	—	76	—	—	—	—	76
“ F.	—	—	—	9	—	—	—	—	9
50-59 “ M.	—	—	—	44	—	—	—	—	44
“ F.	—	1	—	1	—	—	—	—	2
60 years or over..... M.	—	—	—	21	—	—	—	—	21
“ F.	—	—	—	—	—	—	—	—	—
<b>Totals..... M.</b>	<b>175</b>	<b>59</b>	<b>626</b>	<b>1,910</b>	<b>47</b>	<b>39</b>	<b>—</b>	<b>74</b>	<b>2,930</b>
<b>“ F.</b>	<b>99</b>	<b>137</b>	<b>153</b>	<b>247</b>	<b>42</b>	<b>—</b>	<b>32</b>	<b>17</b>	<b>732</b>

A population movement report is received yearly from penal institutions and training schools. These population changes in 1945, 1946 and 1947 are shown in Table 6.

**6.—Penal Institutions and Training School Statistics, 1945-47**

NOTE.—In certain classes of institutions the figure for “In custody at the end of year” does not agree with “In custody at the beginning of the (following) year”. The reasons for this are: changes in reporting procedures, transfers to other institutions, etc.

Institutions	1945	1946	1947
	No.	No.	No.
<b>Penitentiaries. Inmates—</b>			
In custody at beginning of year.....	3,073	3,129	3,362
Admitted during the year.....	1,472	1,794	1,908
Discharged during the year.....	1,421	1,561	1,518
In custody at end of year.....	3,129	3,362	3,752
<b>Reformatories for Men. Inmates—</b>			
In custody at beginning of year.....	1,988	2,220	2,436
Admitted during the year.....	5,145	7,279	8,732
Discharged during the year.....	5,123	7,063	8,589
In custody at end of year.....	2,010	2,436	2,579
<b>Reformatories for Women. Inmates—</b>			
In custody at beginning of year.....	327	204	192
Admitted during the year.....	417	350	370
Discharged during the year.....	447	362	373
In custody at end of year.....	297	192	189
<b>Training Schools for Boys. Inmates—</b>			
In custody at beginning of year.....	1,397	1,306	1,340
Admitted during the year.....	1,483	1,612	1,336
Discharged during the year.....	1,601	1,682	1,368
In custody at end of year.....	1,265	1,236	1,308
<b>Training Schools for Girls. Inmates—</b>			
In custody at beginning of year.....	697	652	508
Admitted during the year.....	602	558	502
Discharged during the year.....	647	685	517
In custody at end of year.....	652	525	493

## 6.—Penal Institutions and Training School Statistics, 1945-47—concluded

Institutions	1945	1946	1947
	No.	No.	No.
<b>Common Gaols. Inmates—</b>			
In custody at beginning of year.....	3,206	3,958	4,185
Admitted during the year.....	53,801	65,768	66,279
Discharged during the year.....	53,026	65,541	66,304
In custody at end of year.....	3,981	4,185	4,160
<b>Total Inmates of Institutions—</b>			
In custody at beginning of year.....	10,693	11,469	12,023
Admitted during the year.....	62,920	77,361	79,127
Discharged during the year.....	62,265	76,894	78,669
In custody at end of year.....	11,334	11,936	12,481

PART VI.—BACKGROUND OF CRIME AND DELINQUENCY  
IN NEWFOUNDLAND PRIOR TO UNION WITH CANADA

## Section 1.—Total Offences

Statistics of criminal and other offences in Newfoundland, Canada's tenth province, will be treated separately in the Year Book until such time as the Criminal Code of Canada comes into effect in that Province.

In Newfoundland indictable offences are handled by the Supreme Court both in St. John's and on circuit.

All charges involving small thefts, traffic offences, etc., are dealt with summarily by 20 local magistrates. Permission for summary trial may be sought for other offences by the police from the Secretary for Justice and the accused.

The Newfoundland Constabulary police the city of St. John's and 40 outport stations which include all the major settlements of the Island. Under the Department of Natural Resources, the Newfoundland Ranger Force, which corresponds to the Royal Canadian Mounted Police, covers the remainder of the Island and Labrador.

Table 1 shows the prosecutions for offences tried summarily for the year 1947.

1.—Prosecutions in Newfoundland for Offences Tried Summarily for the Year  
Ended Dec. 31, 1947

Type of Offence	Cases	Con- victions	Dis- missed	With- drawn	Pending
	No.	No.	No.	No.	No.
Offences against the person..... St. John's...	89	74	14	1	—
Outports.....	75	68	7	—	—
<b>Totals.....</b>	<b>164</b>	<b>142</b>	<b>21</b>	<b>1</b>	<b>—</b>
Offences against property..... St. John's...	371	335	31	1	4
Outports.....	287	269	17	—	1
<b>Totals.....</b>	<b>658</b>	<b>604</b>	<b>48</b>	<b>1</b>	<b>5</b>
Offences against good order..... St. John's...	1,806	1,696	107	2	1
Outports.....	676	635	41	—	—
<b>Totals.....</b>	<b>2,482</b>	<b>2,331</b>	<b>148</b>	<b>2</b>	<b>1</b>
Other offences..... St. John's...	2,226	1,978	237	2	9
Outports.....	602	556	43	1	2
<b>Totals.....</b>	<b>2,828</b>	<b>2,534</b>	<b>280</b>	<b>3</b>	<b>11</b>
<b>Grand Totals.....</b>	<b>6,132</b>	<b>5,611</b>	<b>497</b>	<b>7</b>	<b>17</b>

Police-station activities for the year 1947 resulted in 2,075 male and 196 female persons arrested and charges preferred.

The following statement shows the investigations and prosecutions by the Newfoundland Ranger Force and refers to Labrador and that part only of Newfoundland served by the Force but does not include any part of Newfoundland served by the Newfoundland Constabulary.

<i>Cases</i>	<i>No.</i>	<i>P.C.</i>	<i>Convictions</i>	<i>No.</i>	<i>P.C.</i>
Investigated.....	1,069	..	Convictions obtained.....	717	93·1
Concluded.....	864	80·8	Still under investigation		
Prosecuted.....	770	72·3	Dec. 31, 1947.....	205	19·2
Abandoned.....	94	8·5			

## Section 2.—Juvenile Delinquency

The Welfare of Children Act of Newfoundland which came into effect on Jan. 1, 1945, closely resembles the Child Welfare Act of Alberta. Juvenile delinquents are looked after by the Director of Child Welfare who has also been the Judge of the Juvenile Court. Among his duties as specified in the Act are the following:—

- (a) to encourage and promote the conservation of child life in Newfoundland;
- (e) to exercise such care of and control over neglected, dependent and delinquent children as is required by this Act;
- (f) to keep records of all children who are dealt with under the Department of Public Health and Welfare;
- (g) to secure where possible through child welfare associations, children's aid societies, child welfare committees and otherwise a system of suitable foster homes, boarding homes, and probation homes adapted to the needs of children under supervision.

A juvenile in Newfoundland is an unmarried boy or girl under seventeen years of age. The Act eliminated two courses of action: birching and imprisonment. The latter is, however, provided for juveniles over fourteen years of age who commit indictable offences.

The Act provides that adults may be brought to court to account for their responsibility or contribution to the offences committed by the juvenile.

A Juvenile Court has been established in the city of St. John's.

Statistics from the Juvenile Delinquency Report of St. John's show that, during 1947, 170 juveniles (145 boys and 25 girls) appeared before the Court, as compared with 145 in 1946. This, however, does not indicate an increase in the delinquency rate but is accounted for in a number of ways. These include a more detailed follow-up of girl offenders from 7 to 25 years of age; stricter enforcement of school attendance which raised the number of truants from 9 to 23; and the fact that



probation officers actually sought out boys and girls who needed the disciplinary service of the Court. The number of serious offences decreased considerably as a result of improved community services such as boys' clubs, and boys' camps, together with the preventive services of the Court itself through counsel and probation.

## 2.—Juvenile Prosecutions Tried Summarily in the Outport Stations, 1947

Type of Offence	Number of Cases	Convictions	Dismissed	Pending
Offences against the person.....	7	7	—	—
Offences against property.....	133	132	1	—
Offences against good order.....	27	27	—	—
Other offences.....	27	25	—	2
<b>Totals.....</b>	<b>194</b>	<b>191</b>	<b>1</b>	<b>2</b>



# CHAPTER IX.—EDUCATION AND RESEARCH

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

## PART I.—FORMAL EDUCATION

### Section 1.—Education in Canada, 1947\*

**Organization and Administration.**—Complete educational systems from free elementary schools through grammar (high) schools to normal schools and universities were already well-established in the Maritimes, Ontario, and Quebec when the British North America Act, 1867, which united the provinces, gave each complete control over education within its borders.

In each province there is a government department to deal with educational matters. In all provinces, except Nova Scotia and Quebec, this department is represented in the provincial Cabinet and in the Legislature by a Minister of Education. In Nova Scotia the Premier is chairman of a Council of Public Instruction, while in Quebec, with its system of dual control, the Provincial Secretary represents education in the Legislative Assembly.

Although the Superintendent of Education is head of the Quebec Department of Education, a Roman Catholic and a Protestant committee constitute the Council of Education which formulates policy and superintends the administration of all educational matters. These committees are in charge of the education of Roman Catholics and Protestants, respectively. The Council, however, has no authority over many special and technical schools which come directly under various government departments.

In all other provinces, the immediate head of the Department of Education is a deputy minister or director who is a professional educationalist and advises the minister on policy. Thus there is permanency and continuity to policy despite any changes of government.

\* Prepared in the Education Division, Dominion Bureau of Statistics.

A provincial department of education is divided into several branches whose chiefs are responsible for various aspects of the work. There is usually a chief inspector or superintendent responsible for administration of the schools. There may be one for secondary schools and another for elementary schools. A Registrar is in charge of examinations and certificates and the chief accountant of financial records, including grants to schools. Most provinces also have a director of teacher-training.

In each province there is a large number of local inspectors or superintendents appointed by the provincial Department, each inspector having charge of an area with 70 to 100 schools and acting as liaison officer between the teachers and school boards and the Department. Originally their task was mainly to ensure uniformity and efficiency of instruction and the maintenance of standards in accommodations and equipment. Currently their work is becoming more and more consultative and advisory in nature. As specialists in educational science they are less concerned with inspection and more concerned in giving leadership, promoting departmental policy, and giving advice on administration, and methods and techniques of teaching. Usually there is a group of inspectors for secondary schools distinct from those for elementary schools.

During recent years there has been an increase in specialization and directors have been appointed in charge of special features such as curricula, kindergartens, auxiliary classes, agriculture, art, music, health, vocational guidance, audio-visual aids, rural education and home economics. These directors develop and supervise these features in all schools under their jurisdiction.

Until recent years local administration of education was in the hands of boards of trustees with jurisdiction over a school section or district so limited in area that, in rural sections, no child would have farther than two or three miles to go to school. Towns and cities were natural units. For some years now there has been a movement towards the consolidation of these small districts into larger units. The idea is not a new one to Canada, having been proposed by at least one leading Canadian educator a hundred years ago, and some units in the form of consolidated schools have existed for over 30 years. In some provinces the section board is dissolved on entering a larger unit; in others, it is retained with such minor powers as will maintain an active local interest in the schools. In all provinces west of the Maritimes, the scattered settlements of the northern areas operate as isolated districts.

Prince Edward Island with 462 local school boards is the only province where no large units exist although legislation has been passed authorizing the establishment of large high-school districts.

In Nova Scotia, beginning in 1942, municipal school finance units have been organized on a county basis, each containing about 100 rural schools. Cities and towns remain outside these units. This has reduced the number of financial units from over 1,700 to 24 rural and 45 urban. The local boards were retained with greatly reduced powers.

New Brunswick has followed the same pattern. Fourteen of the 15 counties are organized so that for financial purposes there are now 14 rural and 22 urban boards in place of 1,350.

Ten Protestant central school boards have been formed in Quebec and further reduction in the number of Protestant boards has been accomplished by unions and annexations. One Protestant county high-school district has also been authorized. Roman Catholic schools in Quebec are usually organized with the parish as the unit of administration.

So far, Ontario has organized areas for elementary schools separately from those for secondary schools: 3,070 local public school sections, 53 p.c. of the total, have been organized into 499 township areas. In the more densely populated southern portion of the Province there is usually more than one area in a township. A town or village may be included in an area. There are 20 union Roman Catholic Separate School boards corresponding to township areas. There are approximately 90 larger high-school areas. The average area cuts across municipal boundaries to include 200 square miles of area, a high school population of at least 300 and an assessment of approximately \$7,000,000.

Manitoba has 101 consolidated school districts, including Miniota, a municipal school district. One experimental larger unit, the Dauphin-Ochre River school area, was formed in 1947.

Saskatchewan has organized over 3,000 districts into 45 units; there are still 1,399 districts to be organized. Here, as in the Maritimes, the local board has been retained with minor functions. Schools in towns, separate schools and consolidated schools may join a unit.

Alberta took the lead in establishing the larger unit and has 57 made up of 3,701 of the 3,493 active local school districts. The average division covers some 2,000 square miles with 70 teachers and 1,500 pupils. Many villages and towns are included.

British Columbia, following the advice of the Cameron Report, is organized into 74 larger administrative units and 15 unattached districts. Schools in cities and towns are included in units.

Generally speaking, school trustees are elected by the ratepayers for a term of two or three years in such a manner that only a portion of a board retires each year. In a few cases, such as the high school boards of Ontario, members of the boards are appointed by the municipal councils.

Separate schools, mainly Roman Catholic, exist in Ontario, Saskatchewan and Alberta. There is no difference between these and public schools except that the teacher is of the same religion as the school authorities, and more attention is given to religious instruction.

**Financing the Schools.**—The income required to support these public elementary and secondary schools is derived almost wholly from local taxation and provincial grants.

Fees for elementary schooling may be charged in Quebec. In some of the other provinces fees are charged for secondary grades but, except where in lieu of taxation, they are quite nominal. The total amount of fees for all provinces, exclusive of Quebec, is under \$200,000.

Assessment for school purposes is the valuation of land and buildings (or improvements in some cases) and usually some other factor such as personal property, business or mines income, etc. As these assessments are made by the local municipalities the introduction of the larger unit has done much to equalize the burden of taxation.



In general, school boards submit their budgets to the local municipal councils which levy for and collect the required amounts. School boards in Quebec and some boards in other provinces have the power to levy and collect taxes for school purposes.

Each province has its own method of apportioning grants to local school boards and these schemes have all been more or less radically changed in the last three or four years so that between 1941 and 1947 the provincial share of the expenditures of the school boards has risen from 17 p.c. to 34 p.c. The proportion in each province is as follows:

<i>Province</i>	<i>1947</i>	<i>1941</i>	<i>Province</i>	<i>1947</i>	<i>1941</i>
	<i>p.c.</i>	<i>p.c.</i>		<i>p.c.</i>	<i>p.c.</i>
Prince Edward Island.....	63	60	Manitoba.....	14	15
Nova Scotia.....	41	19	Saskatchewan.....	27	24
New Brunswick.....	28	18	Alberta.....	29	20
Ontario.....	40	10	British Columbia.....	41	30

Total provincial grants to school boards amounted to \$21,000,000 in 1941 and \$53,000,000 in 1947.

Provincial grants are of two types: (1) The basic grant may be calculated on cost, an amount per classroom, a basic minimum cost, salary and qualifications of teacher, average attendance, etc. All provinces adopt some means of increasing equality of opportunity by favouring the poorer areas over the richer ones. (2) Special grants are paid for such features as transportation, music, arts, and crafts, special classes, equipment, building costs, night schools, etc. They loom largest in Quebec where there is marked emphasis on training for home industries, arts and crafts.

While all operating costs have increased since the years before the War the major increases have been in teachers' salaries which amounted to \$52,000,000 for eight provinces in 1936 and reached \$96,000,000 in 1947, and in the amount spent on new buildings and equipment which rose from \$3,250,000 in 1944 to \$8,500,000 in 1946 and \$17,000,000 in 1947 for the provinces reporting—Alberta, Saskatchewan, Manitoba and Ontario. The proportion provided by borrowed money rose from 30 p.c. to 60 p.c. in the same period. This increased expenditure was due to three causes: (1) a back-log of required construction at the end of the War; (2) the need for additional accommodation to meet the needs of increasing enrolment and new concentrations of population; and (3) new construction required following the establishment of larger units of administration and the movement towards larger centralized schools and composite high schools.

**Schools and Curricula.—Primary.**—The primary division of all Canadian schools terminates with grade eight and the secondary begins with grade nine. In British Columbia and Alberta, in the city of Winnipeg and in certain Ontario cities Grades VII and VIII have been combined with Grades IX and X to form intermediate schools or junior high schools.

In all large cities and in the larger towns of Ontario kindergartens are operated as part of the primary school. Most of these are for five-year-olds though a few operate classes for four-year-olds as well.

Most children begin Grade I at age six or early seven and many pupils complete the eight grades in seven years. Attendance is compulsory from the age of eight to the age of 14 with attendance to age 16 being required of urban pupils in some

provinces. Attendance is enforced by local attendance officers and the monthly Family Allowance payments may be stopped if a child fails to attend school without sufficient cause.

In the primary schools emphasis is on the fundamental subjects—reading, writing, arithmetic, health and social studies—with varying additions of science, arts and crafts, music, home economics and shopwork. In rural areas, the science may have an agricultural bias. Despite the fact that each province has its own curriculum and textbooks vary there is considerable uniformity in subject matter and the grade placement of various topics and projects. In methodology, the enterprise or activity technique has largely replaced the drill and recitation method.

*Intermediate.*—The curriculum of these schools includes pre-vocational and exploratory courses giving a greater variety than in the general primary school. They provide a transition between the primary and secondary levels and there is evidence that they tend to hold many pupils in school a year to two years longer than where they do not exist.

*Secondary.*—The traditional secondary school course is directed towards the needs and prerequisites of the universities. The provincial departments authorize texts, prescribe the courses and set examinations. Academic courses and examinations are usually set in consultation with the universities of the province.

Since the end of the First World War, increasing attention has been paid to the needs of those wishing to enter commerce, industry or the trades and to this end at least four separate paths are being followed. One way is by offering many diverse subjects outside a central core of English, mathematics and social studies all within the high-school course. This is the plan in British Columbia and Alberta. In New Brunswick and Ontario the emphasis is on the composite high school where, after the first year, the student enters upon an academic, commercial, industrial or agriculture course. In most of the large cities there are commercial high schools and technical high schools where the students are separated not only by course but by schools. In these large technical schools courses are given leading to matriculation for students desiring to take a university course in engineering, nursing, etc. Quebec, in turn, has a considerable number of specialized schools of agriculture, household science, arts and trades, in addition to ordinary technical schools.

*Advanced Technical Schools.*—In several provinces there are technical schools of the junior college level. In Alberta there is the Calgary Provincial Institute of Technology and Art, in Manitoba a Technical Institute at Winnipeg. There are four technical institutes in Ontario, the Provincial Institute of Mining at Haileybury, the Provincial Institute of Textiles at Hamilton, the Lakehead Technical Institute, Port Arthur and the Ryerson Institute of Technology at Toronto. There is also an agricultural school at Kemptville.

Quebec has several institutes of fine arts and graphic arts, one for forest rangers and another for paper-making. Recent legislation provides for the establishment of technical institutes in Nova Scotia.

*Teacher-Training Schools.*—In all provinces (except Alberta and Quebec) teachers for the primary schools are trained in the provincial normal schools. Most provinces now require training two or more years beyond matriculation.

While some of the Catholic normal schools in Quebec are operated by the Province, others are operated by religious orders and one by Laval University. The Protestant normal school is at Macdonald College of McGill University.

In Alberta all teacher-training is concentrated in the Faculty of Education of the University of Alberta where prospective teachers may take a two-, three- or four-year course. Secondary school teachers receive a four-year course.

Secondary school teachers are required to have an undergraduate degree in Arts and Science plus a year's professional training as in Nova Scotia and Ontario or receive professional training as part of the university course as in British Columbia and Saskatchewan.

Teachers of industrial subjects are required to have considerable trade experience before taking professional training. Special training is given teachers for kindergartens, handicapped children and such special subjects as music, home economics, arts and crafts, etc.

*Special Features.*—The value of teachers trained to give advice on the many problems involved in choosing a vocation has become more widely recognized, and increased attention is being given in most secondary schools to vocational guidance. Not only counselling, but aptitude tests and lectures dealing with various trades and professions are being made available to the students.

In the universities counsellors were first appointed at the request of the Federal Department of Veterans Affairs to advise student veterans. In some institutions this has been extended to all students.

The film, phonograph and radio are becoming standard educational equipment. Most of the departments have set up a directorate to arrange for equipment grants and to supervise the establishment of the necessary facilities in the schools. The National Film Board has a series of educational films available for all Canada's schools and some of the provincial departments and the more important public libraries have film libraries. The phonograph is being used for language-teaching as well as for music instruction. The CBC provides special educational broadcasts and relays exchange features from the BBC and the United States networks.

Special methods are adopted to bring education to the children of remote areas. All provinces have correspondence branches which provide instruction at the primary and secondary school levels. These courses are also used by secondary school students who require particular subjects not taught in the local schools. Ontario has a number of railway school cars working in conjunction with the correspondence courses. Each car has an itinerary of some 200 miles on the northern railway lines. A car is "spotted" on a siding and instruction is given the pupils of the area for about two weeks when the car moves on to another siding.

**Enrolment.**—At the secondary school level enrolments have been increasing since the school year 1944-45 except in Saskatchewan. Birth registrations of the past few years indicate that by 1953-54 the enrolment in Grades I to VIII will have increased from 1,712,662 to over 2,307,000, a total of 595,000, and there is every indication that the increase may amount to 800,000 by 1960. A decline may set in shortly after that. An increase of 800,000 is equal to over 45 p.c. of the total enrolment in the elementary schools of Canada and is 140 p.c. of the elementary enrolment of the largest province—Quebec. Grades above Grade VIII will begin to feel the effects between 1953 and 1955.

Other factors, too, are operating to increase enrolment. The introduction of Family Allowances in 1945 while showing its effects on schools most clearly in improved attendance has also kept in school to the legal age limit many pupils who were leaving from a few months to two years before they were lawfully entitled to leave.



Increasing emphasis on the holding power of schools, increased transportation facilities at public expense, the building of dormitories in some provinces, the larger unit of administration, the establishment of junior high schools and composite schools, the wave of post-war immigration from Europe and the British Isles—all these are operating to increase school enrolments.

On the assumption that there should be one teacher for every 30 pupils, an additional 18,200 teachers will be required by 1953-54. This takes no account of the present shortage and is indicative of future requirements in classrooms, equipment and capital funds not to mention revenue for operating purposes. In some provinces it is certain that the whole structure of school finance will have to be modified, if not reorganized, to cope with the increased cost.

**Teachers.**—The post-war years have found Canadian schools with a shortage of teachers of such proportions that, in 1946, one out of every ten teachers in all provinces (except Quebec) was teaching on a permit. However, in 1947 there was a decline of 246 in the number of permits issued. Despite the highest salary levels in history teachers continue to leave the profession in large numbers. Data for Ontario for 1947 showed 31 p.c. of the loss going to other occupations and 30 p.c. leaving to be married. On the other side of the picture, beginning with 1946, enrolment in teacher-training schools began to increase.

About three-quarters of the 70,000 teachers in publicly controlled schools in Canada are women. Before the War men made up approximately 29 p.c. of the total. The proportion of men to women in secondary schools is greater than in primary schools.

In all provinces minimum salary levels are established and in most cases salaries are above these minima. Of recent years salary schedules have become established on the basis of the larger unit or even of a province as a whole. Nova Scotia has established a schedule based on experience and qualifications and in Saskatchewan over 75 p.c. of the teachers are employed on the basis of a schedule for rural and village schools.

All provinces have in effect contributory pension schemes for teachers. Some provinces pay into the fund an amount equal to that contributed by the teachers. Teacher contributions vary from 2.5 p.c. to 5 p.c. of annual salary. Retirement on pension is usually provided for at age 60 or 65. Most schemes provide for pension in case of disability.

**Private Schools.**—Private schools include all those not operated by publicly elected or appointed boards. Except in Quebec, they receive no support from public funds.

Outside of Quebec, 272 academic primary and secondary private schools were reported in 1947. One-half of these were Catholic, 21 p.c. Protestant, 1 p.c. Jewish, and 28 p.c. non-denominational. Enrolment decreased from 39,581 in 1944 to 37,995 in 1947 despite the fact that the 1947 figure included 10 additional schools. The number of teachers decreased from 2,202 to 2,089. This decrease in enrolment took place at both elementary and secondary grade levels.

Instruction is similar to that given in public schools except that more opportunities may be given for music, art, etc. In schools under religious control there is greater emphasis on religious instruction. They are financed largely from fees,



legacies, gifts, or by religious orders. Fees range from inexpensive institutions to those charging \$800 to \$1,000 per year. In most provinces there is some form of inspection or regulation by the provincial department of education.

Some 160 private business colleges (more than half of these being in Ontario) give training for office and secretarial positions. Enrolment in these schools has been increasing and was 15,015 for full-time students in 1947 as against 10,384 in 1944. The number of part-time students decreased from 1,801 to 1,410 in the same period. In 1947 there were, in addition to the above, 14,525 enrolled in evening classes. About 70 p.c. of the students attending these schools are girls.

### Subsection 1.—The Educational System of Newfoundland at the Time of Union\*

The first recorded school in Newfoundland was established at Bonavista in 1726 by the Rev. Henry Jones, who had been sent to the colony by the Society for the Propagation of the Gospel in Foreign Parts. It was not unfitting that the first school in Newfoundland should have been set up in the town of Bonavista where Cabot first landed. However, it was 1836 before the Government assumed definite responsibility for public education. In that year Newfoundland's first Representative Government allocated £2,100 sterling for education and in that year, too, Newfoundland's first Education Act was passed.

Between 1726 and 1836 the Church of England, the Roman Catholic Church and, later, the Methodist Church established schools in various parts of the Island and, when the first education grant was voted, part of it was divided among the denominational schools. The 1836 Act, however, was undenominational in principle but, since apparently undenominational schools were not popular, an amendment to the Act in 1843 recognized a two-way system and made provision for the division of education grants equally between Protestants and Roman Catholics. At that time the country was divided into 36 educational districts—18 Protestant and 18 Roman Catholic. There followed a period of much educational unrest during which the legislation had to be amended many times. Finally, in 1874 an Education Act was passed recognizing the denominational system which had grown logically and inevitably out of the will of the people. The 1874 Act, though amended five or six times between 1876 and 1927, remained basically in force until, in 1935, a further amendment radically changed the Act as in force at the time.

The Act, as operative in 1927, was a lineal descendant of the 1874 Act. It made provision for a uniform system of education within a denominational framework. Policies were formulated and controlled by a body known as the Bureau of Education, the actual administration of the Department being carried out under the direction of the Secretary for Education.

The 1935 amendment replaced the Bureau of Education by a Secretary responsible to the Commissioner for Home Affairs and Education, and two Assistant Secretaries whose functions were not defined. Later, a third official of assistant secretarial rank was appointed. The three Assistant Secretaries, while chosen on a denominational basis, were not official representatives of the religious bodies to which they belonged.

A body known as the Advisory Committee (consisting of six members: two Church of England, two Roman Catholic and two United Church) was appointed to maintain a channel of communication with the major denominations and the

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local school boards which were denominational. This Committee, however, was not in close contact with the problems of the Department and proved to be ineffectual.

In 1939 the Education Act was again amended bringing back a Departmental organization similar to that existing prior to the changes made in 1935. It established a Council of Education with a Commissioner and Secretary, three Assistant Secretaries (now known as Executive Officers) and a member of the Salvation Army, each officially representing one of the large religious groups of the country. The Salvation Army representative has since become the fourth Executive Officer in the Department. The 1939 establishment is still operative but in 1944 three Assistant Executive Officers were appointed, and in 1946 an Assistant Secretary was added to headquarters staff.

The Council of Education is responsible for educational policy, subject to the approval of the Minister, and the Executive Officers who, outside of the Council, are regular civil servants, carry out, under the supervision of the Secretary, the Council's policies affecting their respective denominations. In effect the Executive Officers are denominational directors of elementary and secondary education. Since Apr. 1, 1949, when Newfoundland became the tenth province of Canada, the Minister of Education has taken the place of the Commissioner and the title of the permanent head of the Department has been changed from Secretary to Deputy Minister.

**Elementary and Secondary Education.**—In order to have a correct perspective with regard to the denominational system of education functioning on the elementary and secondary school level in Newfoundland, it is necessary to realize that the country was served by church schools for at least 100 years before the State took any part in public education. Furthermore, the population, which is spread out in a thin ribbon along 6,000 miles of coast line, is to a great extent still distributed denominationally. A survey made in 1944 by the supervising inspectors showed that less than 15 p.c. of the settlements were affected by a duplication or multiplication of school services, and that approximately one-half of the 36 p.c. of the population affected was located in the larger settlements, such as St. John's, Grand Falls and Corner Brook, where a number of schools would be necessary whatever the system.

In Newfoundland there is really but one system of education operating through a number of branches. All schools follow the same curriculum. All secular teachers follow the same education courses. Certification of teachers is uniform. Except for religious instruction and basic readers, all schools follow the same prescribed textbooks. The same policy of supervision is carried out in all schools.

The following statement gives summary education statistics for the year ended June 30, 1948:—

Population.....	No.	320,000	Median salary paid teachers.....	\$	981.32
Enrolment in schools.....	"	72,940	Compulsory school age.....	yr.	7 to 14 <sup>1</sup>
School districts.....	"	250	Appropriation for all educational services (1947-48).....	\$	3,662,959
Schools.....	"	1,200	Appropriation for elementary and secondary education services.....	\$	3,367,011
One-room schools.....	"	796	Per capita Government expenditure on education (all services).....	\$	11.45
Classrooms.....	"	2,240	Per capita Government expenditure, elementary and secondary education	\$	10.52
Supervising inspectors.....	"	22	Per pupil Government expenditure, elementary and secondary education	\$	46.16
Total teachers.....	"	2,278			
Uncertificated teachers.....	"	393			
Teaching days required in school year.....	"	190			
Average attendance.....	p.c.	76.4			

<sup>1</sup> A child reaching his 14th birthday during a school year must remain in school for that year.

The schools of Newfoundland operate on an eight plus three plan, eight grades for primary and elementary education and three for high school. Pupils completing the high school course may obtain a school-leaving Grade XI diploma or a Junior Matriculation diploma. To obtain the former a pupil must pass in English and any other four subjects from a list of about 13 subjects. To matriculate the candidate must pass in English, history, mathematics, a foreign language, a science and one other subject, gaining not less than 50 p.c. in each subject.

**Council of Higher Education.**—Newfoundland's external examinations are conducted by a body corporate established in 1892 and known as the Council of Higher Education. At the present time this body conducts external examinations in Grades IX, X and XI. The Council has been a member of the Common Examining Board of the Maritime Provinces and Newfoundland from the inception of that Board's operations in 1932. A small number of Newfoundland schools take the Nova Scotia Grade XII examinations. The Council's Junior Matriculation diploma qualifies Newfoundland students for admission to the first year of most Canadian universities as well as to the first year of the Newfoundland Memorial University College.

**Memorial University College.**—The Memorial University College was founded in 1925. It is recognized by such institutions of higher learning as Dalhousie, McGill, Toronto, Harvard and Columbia. The College has established a reputation for maintaining high standards of scholarship. It offers the following courses: two years of arts and science; two years pre-medical; a four-year education course (only three years given at present); a three-year pre-engineering course; and a two-year course in household science. There is a growing demand that the institution be granted a charter and become a full degree-conferring university.\*

**Adult and Visual Education.**—One of the major divisions of the Department of Education is that of Adult and Visual Education. Adult education is broadly conceived and takes many forms. It combats illiteracy and organizes study groups and women's clubs for the purpose of encouraging enlightened civic and self-interest among the people. It carries on regular night classes for adults whose scholastic requirements vary from Grade I to Grade XI. The work of adult education has been greatly handicapped in recent years because of lack of trained field workers, but certain activities have prospered in spite of all difficulties. This is particularly true of the Adult Centre at St. John's.

Visual education has advanced considerably in recent years. The demand for films and film strips is very high. Unfortunately communications throughout the country are too meagre to allow more than a superficial distribution to coastal settlements. However, in the past three years 60 schools have been equipped with projectors and the Division library contains some 1,400 films and 5,000 strips.

Government expenditure on the adult and visual education services for the year ended Mar. 31, 1948, amounted to \$83,227.

**National Handicrafts.**—The Division of National Handicrafts is administered by the Department of Education. The Handicraft Centre, located at St. John's, serves the whole Island by promoting an interest in handicrafts as a cultural and economic asset to the people and to the country. Young people from the outports are trained in such skills as woodworking, wood carving, leather craft, pottery, rug designing and hooking, stone polishing, weaving, dressmaking and cooking,

\* Since the above was written full degree-conferring powers were granted by the Charter conferred by the first session of the Provincial House of Assembly, July, 1949.



and are later assisted by way of loans in carrying on the craft or crafts they have learned. Up to June, 1949, some 1,800 persons had taken advantage of the services of the Handicraft Centre. Government expenditure on handicrafts for the year ended Mar. 31, 1948, was \$58,817.

**Vocational Education.**—Only the smallest beginnings have been made in this very important branch of modern education. It is true that large numbers of Newfoundland boys learn carpentry, motor-mechanics, sail-making, boat-building, house-building and many other trades from their fathers in the outports. But this is less true to-day than it was a generation ago, and the Province is suffering from a lack of well-trained and well-educated craftsmen and tradesmen.

The Government organized the St. John's Vocational Institute in 1944 for the benefit of war veterans. The civil re-establishment program ended in December, 1948, and since then the Institute has been carrying on as a trade school for civilians. The Vocational Institute was transferred from Home Affairs to Education on Apr. 1, 1949. The educational authorities visualize a vocational education service patterned on that existing in New Brunswick. However, at the time of writing (June, 1949), the life of the Institute has not been guaranteed beyond September, 1949, and only \$30,000 has been allocated in the 1949-50 budget for its operation.

**The Public Libraries.**—The public libraries of Newfoundland are administered by the Public Libraries Board (a voluntary organization of 25 citizens) which operates under the Public Libraries Act. The public library vote is carried as a regular sub-head of the Department of Education estimates and its communications with the Government are channelled through that Department, which exercises general supervision over expenditure without interfering in the internal affairs of the library, whose policies are subject to the approval of the Government.

At the present time, in addition to the Gosling Memorial Library at St. John's, there are 27 regional libraries, strategically located throughout the country, and a travelling library, with headquarters at St. John's, circulates books in remote districts. The total book stock of all three services is 87,000. The expenditure of public funds on library services for the year ended Mar. 31, 1948, amounted to \$69,648.

### **Subsection 2.—Education in the Northwest Territories\***

Educational matters relative to the Northwest Territories come under the jurisdiction of the Northwest Territories Council. The education of the white, native, and half-breed children in the Mackenzie District is carried on at residential and day schools operated under the supervision of the Federal Government by the mission of the Church of England in Canada at Aklavik, and by the missions of the Roman Catholic Church at Fort Resolution, Fort Providence, and Aklavik. In addition, Government day schools are located at Port Brabant, Fort Norman, Port Radium, Fort Smith, and Fort Simpson, and are being established at Aklavik, Fort Resolution and Coppermine. Located in the principal settlements, the residential schools were constructed by or with the assistance of the Federal Government, and their maintenance is assisted by annual grants from the same source. In addition, the Northwest Territories Administration furnishes school supplies and equipment. The Government day schools are completely maintained by the Federal Government, a number being operated by the Indian Affairs Branch of the Department of Mines and Resources and a number coming under the jurisdiction of the Northwest Territories Administration.

\* Prepared under the direction of the Deputy Minister, Department of Mines and Resources, Ottawa.



A fine modern elementary and high-school building has been completed at Yellowknife, and is designed to serve children residing at other settlements in the Mackenzie District. The school at Yellowknife is the only one in the Northwest Territories maintained chiefly by local taxation and administered by a local school board. A non-denominational school at Fort Smith is maintained by fees and grants.

Elementary and high-school students in remote areas of the Territories have access to correspondence study courses issued by the Alberta provincial educational authorities, and costs in this connection are borne by the Administration.

A Superintendent of Education for the Mackenzie District has been appointed. His headquarters are at Yellowknife, N.W.T., and he will make regular inspections of the schools throughout the District.

The administration of education in the Northwest Territories is being re-organized and new facilities made available. Among the improvements inaugurated recently is an extensive circuit for the regular distribution of educational films and special radio broadcasts to the classrooms. Present plans include the provision of additional equipment and supplies, increased attention to methods of instruction, and the establishment of new day schools in areas where facilities for educational instruction are not as yet available.

The Department of Mines and Resources is working in co-operation with the Department of National Health and Welfare in the development of an educational and welfare program designed to make additional facilities available to those who live in the Territories. The new schools, under the Northwest Territories Administration and the Indian Affairs Branch of the Department of Mines and Resources, are to be staffed by a special classification of welfare teachers, who will carry on welfare work in the communities in addition to their regular teaching duties.

Eskimo children in the Eastern Arctic are given some education at mission day schools. Because of their nomadic tendency, however, Eskimos seldom remain very long at the settlements and the periods available to the missions for teaching the children are therefore comparatively short. Eskimo children along the Western Arctic Coast and in the Mackenzie Delta attend the mission residential schools at Aklavik. Government day schools for Eskimo children are being established at Chimo, Que., Coral Harbour on Southampton Island, Port Harrison, Que., and Lake Harbour on Baffin Island. The Eskimos of the Eastern Arctic have mastered a system of syllabic writing (geometric characters similar to a type of shorthand), which most of them can now read and write proficiently. Advantage of this has been taken to provide educational material in the Eskimo language giving advice on health matters, hygiene, and native economics for the benefit of both children and adults.

## Section 2.—Schools, Universities and Colleges\*

This Section summarizes the enrolment in all the educational institutions in Canada which include four types: provincially controlled schools, privately controlled schools, universities and colleges and Federal Indian schools. The provincially controlled schools are the most important group and account for about 90 p.c. of the total enrolment shown in Table 1. A system of public elementary and secondary education, financed mainly by local school authorities but assisted

\* Revised, except where otherwise indicated, in the Education Division, Dominion Bureau of Statistics.

by provincial grants, has developed in each province. There are private schools in all provinces (i.e., schools that are not conducted by publicly elected or publicly appointed boards and are not financed out of public money) but their enrolment is not large in comparison with that of the public schools. At the level of higher education, there is a provincial university in each of six provinces and one or more colleges supported out of provincial funds in the remaining three provinces. (Agricultural schools and colleges are dealt with at pp. 203-213 of the 1943-44 Year Book.)

### 1.—Enrolment in Educational Institutions, by Provinces, School Year 1946-47

Type of School	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
	No.	No.	No.	No.	No.
Provincially Controlled Schools—					
Ordinary and technical day schools....	17,869	122,211	96,435	566,120	678,043
Evening schools.....	—	3,955	2,369	15,825	38,198
Correspondence schools.....	301	985	383	1,000	2,523
Special schools <sup>1</sup> .....	—	177	—	1,225	3,552
Normal schools.....	51	270	273	4,767	1,359
Privately Controlled Schools—					
Ordinary day schools.....	803	3,109	2,841	62,030	15,694
Business training schools.....	212	1,106	1,119	7,850	15,024
Universities and Colleges—					
Preparatory courses.....	543	509	750	19,088	2,421
Courses of university standard.....	284	4,755	2,794	27,422	42,344
Other courses at university <sup>2</sup> .....	70	79	414	9,924	11,405
Federal Indian schools.....	28	575	373	1,648	4,719
<b>Totals.....</b>	<b>20,161</b>	<b>137,731</b>	<b>107,751</b>	<b>716,899</b>	<b>815,287</b>
Population, 1947 (estimated).....	94,000	621,000	491,000	3,712,000	4,189,000
	Manitoba	Saskat- chewan	Alberta	British Columbia	Canada
	No.	No.	No.	No.	No.
Provincially Controlled Schools—					
Ordinary and technical day schools....	120,813	170,329	155,517	139,186 <sup>3</sup>	2,066,523
Evening schools.....	2,612	2,342	462	35,075	100,838
Correspondence schools.....	4,104	3,123	17,367	6,128	35,919
Special schools <sup>1</sup> .....	38	173	—	124	5,289
Normal schools.....	369	1,306	4	336	8,731
Privately Controlled Schools—					
Ordinary day schools.....	4,125	3,721	2,507	5,195	100,025
Business training schools.....	3,721	1,904	3,855	4,009	38,800
Universities and Colleges—					
Preparatory courses.....	1,071	597	990	—	25,969
Courses of university standard.....	7,360	8,743	5,946	9,782	109,430
Other courses at university <sup>2</sup> .....	4,244	2,087	332	2,429	30,984
Federal Indian schools.....	2,742	2,742	2,218	4,577 <sup>4</sup>	19,622
<b>Totals.....</b>	<b>151,199</b>	<b>197,067</b>	<b>189,194</b>	<b>206,841</b>	<b>2,542,130</b>
Population, 1947 (estimated).....	743,000	842,000	822,000	1,044,000	12,582,000 <sup>6</sup>

<sup>1</sup> Schools for the blind, deaf, or mentally defective. These are boarding schools and many of the pupils are from provinces other than the one in which they are at school. Based on estimates. <sup>2</sup> Includes also those in the departmental summer schools for teachers in British Columbia, not held at universities or colleges. <sup>3</sup> Includes 1,359 in ordinary day schools for Yukon and the Northwest Territories.

<sup>4</sup> Included with "Universities and Colleges — Preparatory courses".

<sup>5</sup> Includes 458 in Federal Indian schools for Yukon and the Northwest Territories. <sup>6</sup> Includes 24,000 population for Yukon and the Northwest Territories.

### Subsection 1.—Federal Indian Schools

The administration of Indian Affairs by the Indian Affairs Branch of the Department of Mines and Resources is dealt with in Chapter XXIX.

Education work carried on by the Federal Government for the benefit of Indians has developed greatly in the post-war period. In the year ended Mar. 31, 1949, a total of 386 Indian schools were in operation, including 72 residential schools for Indians with an enrolment of 9,368 and 309 day schools for Indians with an enrolment of 12,615. This figure included 104 Indian pupils enrolled in five combined public and Indian schools. The number of Indian children attending provincial schools has increased greatly and in 1948-49 totalled 1,302. This means that the number of Indians enrolled in schools of all kinds in 1948-49 was 23,285.

An active building program has helped to bring about this increased enrolment. Tuition grants to attend high schools and universities are being paid to many students, and in 1948-49, 661 Indians were enrolled in secondary schools of various kinds. The total amount spent on Indian education in that year was \$5,225,000.

### 2.—Enrolment and Average Attendance at Indian Schools, Years Ended Mar. 31, 1940-49

NOTE.—Figures for the years 1916-29 will be found at p. 1063 of the 1940 Year Book, and for 1930-39 at p. 929 of the 1942 edition.

Year	Residential Schools		Day Schools <sup>1</sup>		All Schools		
	Enrolment	Average Attendance	Enrolment	Average Attendance	Enrolment	Attendance	
						No.	P.C. of Enrolment
	No.	No.	No.	No.	No.		
1940.....	9,027	8,643	9,369	6,417	18,396	15,060	81.9
1941.....	8,774	8,243	8,651	6,110	17,425	14,353	82.4
1942.....	8,840	8,283	8,441	5,837	17,281	14,120	81.7
1943.....	8,830	8,046	8,046	5,395	16,876	13,441	79.6
1944.....	8,729	7,902	7,858	5,355	16,587	13,257	79.9
1945.....	8,865	8,006	7,573	5,159	16,438	13,165	80.1
1946.....	9,149	8,264	9,656	6,779	18,805	15,043	80.0
1947.....	9,304	8,192	10,318	7,449	19,622	15,641	79.7
1948.....	8,986	7,863	11,115	8,296	20,101	16,159	80.3
1949.....	9,368	8,345	12,615	10,414	21,983	18,759	85.3

<sup>1</sup> Includes enrolment and attendance of Indians in combined public and Indian schools.

Enrolment by provinces for the year 1948-49 was as follows: Prince Edward Island, 47; Nova Scotia, 616; New Brunswick, 372; Quebec, 1,916; Ontario, 5,417; Manitoba, 3,101; Saskatchewan, 2,871; Alberta, 2,267; British Columbia, 4,585; Yukon, 273; and the Northwest Territories, 518.

### Subsection 2.—Provincially Controlled Elementary and Secondary Schools\*

**Enrolment and Attendance.**—Enrolment in provincially controlled schools is given for the latest school year available in Table 1 and average daily attendance is shown in Table 3. The average daily attendance figures are more comparable, as between provinces, and probably more significant for most purposes than those of enrolment.

\* Day and technical schools only.

### 3.—Average Daily Attendance in Provincially Controlled Schools, by Provinces, School Years Ended 1938-47

NOTE.—Figures for years prior to 1911 will be found at pp. 839-840 of the 1932 Year Book, those from 1911-25 at p. 963 of the 1937 edition and for 1926-37 at p. 1028 of the 1946 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1938....	13,498	93,231	73,041	549,398	607,851	116,650	173,205	135,163	106,515	1,868,552
1939....	13,439	93,291	73,248	560,021	605,501	115,655	163,356	138,392	107,660	1,870,563
1940....	13,598	93,359	73,046	555,835	607,693	114,800	163,580	139,886	108,826	1,870,623
1941....	12,855	89,379	69,321	542,938	582,466	110,826	155,937	135,386	103,192	1,802,300
1942....	12,975	89,915	72,119	532,759	576,711	106,631	152,354	139,886	102,085	1,785,435
1943....	12,759	86,630	69,814	515,140	553,954	103,169	138,019	127,214	93,473	1,697,172
1944....	12,621	89,490	69,523	518,896	559,796	99,471	136,752	128,051	102,999	1,717,599
1945....	12,984	93,831	70,746	529,741	571,625	100,971	135,336	130,095	107,599	1,746,928
1946....	14,321	99,367	74,529	529,613	590,801	104,666	138,267	133,162	114,590	1,799,316
1947....	14,850	102,099	78,129	533,765 <sup>p</sup>	597,400	103,739	135,038	131,011	121,334	1,817,365 <sup>p</sup>

**Grade Distribution.**—A record of the grade distribution of pupils in the provincially controlled schools of all provinces is presented in Table 4. The grades of boys and girls are not shown separately.

### 4.—Grade Distribution of Pupils Enrolled in Provincially Controlled Schools, by Provinces, School Year 1946-47

Grade	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Kindergarten.....	—	—	—	2,620	26,706	—	—	—	1,009
Grade I.....	2,694	22,219	14,714	84,242	79,376	19,928	22,302	18,658	16,701
II.....	1,972	13,899	12,015	76,394	68,596	12,972	19,235	16,153	14,482
III.....	2,062	14,104	11,753	77,592	63,624	12,501	18,093	15,972	14,063
IV.....	2,011	13,499	10,938	79,205	62,676	11,857	16,828	15,779	13,218
V.....	1,933	12,372	10,299	70,246	61,873	11,643	16,925	14,948	12,468
VI.....	1,741	11,259	9,050	59,555	60,483	11,020	16,162	14,711	12,062
VII.....	1,596	9,942	7,876	44,512	57,390	10,300	15,317	14,142	11,890
VIII.....	1,504	8,210	6,716	24,553	56,595	9,047	13,450	12,481	11,027
IX.....	1,081	6,753	3,993	17,533	47,030	8,144	11,077	11,299	10,219
X.....	941	5,220	2,348	8,864	36,664	6,381	8,738	8,359	8,561
XI.....	115	3,500	1,640	5,139	23,125	5,160	6,656	6,702	6,327
XII.....	16	1,244	74	1,745	15,912	1,860	5,094	6,313	4,785
XIII.....	—	—	—	17	10,511	—	—	—	1,015
Unclassified.....	203	—	5,019	13,903	7,492	—	452	—	—
<b>Totals.....</b>	<b>17,869</b>	<b>122,211</b>	<b>96,435</b>	<b>566,120</b>	<b>678,053</b>	<b>120,813</b>	<b>170,329</b>	<b>155,517</b>	<b>137,827</b>

**Teaching Staffs.**—The teaching staffs of day schools under provincial control in Canada consisted, in 1947, of 51,683 teachers (13,058 males and 38,625 females). Table 5 gives statistics of rates of salary by provinces, except for Quebec for which comparable data are not available. A separate report, "Teachers' Salaries and Qualifications in Eight Provinces, 1947", deals in detail with the classification of teachers, their teaching experience and rates of salary paid.



### 5.—Teachers in Provincially Controlled Schools Classified According to Salary, by Provinces, School Year 1946-47

NOTE.—Comparable figures for Quebec are not available.

Salary	Prince Edward Island	Nova Scotia	New Brunswick	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
	No.	No.	No.	No.	No.	No.	No.	No.
Less than \$525 .....	7	—	53	71	—	—	—	—
\$ 525 - \$1,024 .....	542	1,114	1,582	1,561	748	285	396	4
1,025 - 1,524 .....	100	1,662	786	10,231	1,839	5,245	2,150	917
1,525 - 2,024 .....	16	713	253	4,246	658	922	1,558	1,433
2,025 - 2,524 .....	6	234	129	3,532	515	307	691	1,251
2,525 - 3,024 .....	1	67	47	1,419	186	147	253	559
3,025 - 3,524 .....	—	40	12	1,115	101	89	110	345
3,525 - 4,024 .....	—	6	4	756	62	48	97	207
4,025 or over .....	—	2	—	73	22	8	16	66
Unspecified .....	—	—	7	—	9	15	37	—
<b>Totals .....</b>	<b>672</b>	<b>3,838</b>	<b>2,873</b>	<b>23,004</b>	<b>4,140</b>	<b>7,066</b>	<b>5,308</b>	<b>4,782</b>

**Financial Statistics.**—Table 6 presents a comparable statement of the finances of the Boards operating provincial schools so far as this can be done with existing records.

### 6.—Financial Support of Provincially Controlled Schools, by Provinces, for Provincial Fiscal Years Ended 1939, 1946 and 1947

NOTE.—The receipts shown in this table do not include any amounts raised by loans or the sale of bonds or debentures, as all revenue of this nature must be repaid ultimately with money raised by local taxation. With the exception of the Maritime Provinces, for which the information is not available, the total net debenture indebtedness of the schools of each province is given annually, thus showing the net increase or decrease per annum. Figures for 1914-25 will be found at pp. 985-987 of the 1936 Year Book and those for 1926-45 in the corresponding tables of subsequent editions.

Province and Year	Provincial Government Grants	Local Taxation	Other Sources	Total Current Revenue Recorded	Debenture Indebtedness <sup>1</sup>	Administrative Units Operating Schools
	\$	\$	\$	\$	\$	\$
<b>Prince Edward Island—</b>						
1939 .....	274,323 <sup>2</sup>	175,244	..	449,567	..	474
1946 .....	349,422 <sup>2</sup>	292,935	..	642,357	..	463
1947 .....	362,422 <sup>2</sup>	324,665	..	687,087	..	458
<b>Nova Scotia—</b>						
1939 .....	718,546 <sup>2</sup>	3,341,689 <sup>3</sup>	..	4,060,235	..	1,775
1946 .....	2,447,414 <sup>2</sup>	4,217,834 <sup>3</sup>	..	6,665,248	..	1,738
1947 .....	3,173,663 <sup>2</sup>	4,523,745 <sup>3</sup>	..	7,697,408	..	1,738
<b>New Brunswick—</b>						
1939 .....	534,315 <sup>2</sup>	2,637,820 <sup>3</sup>	..	3,172,135	4,659,650	1,553
1946 .....	1,233,286 <sup>2</sup>	3,590,569 <sup>3</sup>	..	4,823,855	4,203,500	..
1947 .....	1,285,057 <sup>2</sup>	3,375,089 <sup>3</sup>	..	4,660,146	..	..
<b>Quebec—</b>						
1939 .....	2,386,965	19,716,324	1,572,832	23,676,121	68,043,977	1,905
1944 <sup>4</sup> .....	6,768,395	23,554,568	2,015,294	32,338,257	72,618,071	1,966
<b>Ontario—</b>						
1939 .....	7,015,225	41,638,332 <sup>3</sup>	..	48,653,557	59,499,543	6,600
1946 .....	29,204,092 <sup>2</sup>	37,651,813 <sup>3</sup>	1,828,768	68,684,673	43,745,893	5,138
1947 .....	30,186,049 <sup>2</sup>	45,949,343 <sup>3</sup>	1,885,863	78,021,255	56,093,379	4,284
<b>Manitoba—</b>						
1939 .....	1,172,783	6,850,783	139,756	8,163,322	8,045,764	1,889
1946 .....	1,482,380	8,477,203	550,763	10,510,346	3,699,614	1,815
1947 .....	1,180,386	8,191,619	425,594	9,797,599	3,393,189	1,740

For footnotes, see end of table, p. 330.

**6.—Financial Support of Provincially Controlled Schools, by Provinces,  
for Provincial Fiscal Years Ended 1939, 1946 and 1947—concluded**

Province and Year	Provincial Government Grants	Local Taxation	Other Sources	Total Current Revenue Recorded	Debenture Indebtedness <sup>1</sup>	Adminis- trative Units Operating Schools
	\$	\$	\$	\$	\$	\$
<b>Saskatchewan—</b>						
1939.....	2,305,375	7,254,500	451,143	10,011,018	12,936,569	4,933
1946.....	3,843,550	11,625,302	278,916	15,747,768	6,196,065	..
1947.....	4,920,115	12,568,037	299,658	17,787,810	5,779,688	4,398
<b>Alberta—</b>						
1939.....	1,809,392	8,387,514	253,252	10,450,158	7,653,468	3,592
1946.....	3,231,727	11,690,825	276,913	15,199,465	6,422,084	2,722
1947.....	5,275,493	13,290,189	365,670	18,931,352	6,752,715	2,659
<b>British Columbia—</b>						
1939.....	2,722,702	7,009,070	..	9,731,772	14,379,553	721
1946.....	4,076,212	8,893,955	494,091	13,464,258	..	86 <sup>6</sup>
1947.....	6,569,908	9,924,391	245,113	16,739,412	..	89

<sup>1</sup> Net figures, after deduction of sinking funds, except for British Columbia, 1939, for which the gross figure is given. <sup>2</sup> Includes contributions to teachers' salaries in the Maritime Provinces and, in New Brunswick, grants made to schools by the Vocational Education Board. <sup>3</sup> Includes amounts raised by counties and, in Ontario, the township grants on salaries of rural public school teachers. <sup>4</sup> Latest available figures. <sup>5</sup> Day school grants only. <sup>6</sup> In 1946 school districts were amalgamated into larger administrative units.

**Subsection 3.—Private Elementary and Secondary Schools**

Enrolment in private elementary and secondary schools in the eight provinces, other than Quebec, has increased during the past ten years at about the same rate as the total population. In 1938 there were 34,109 pupils enrolled, 8,679 of whom were in residence, while in 1947, 37,995 were enrolled and 11,517 were in residence. Girls were slightly in the majority in 1938 but were about one-third above the enrolment of boys in 1946. In 1938 there were 2,018 teachers, 570 of whom were males and in 1947 there were 2,089 teachers of whom 606 were males and 355 were classed as part-time teachers.

The age of the school population in private schools does not follow the usual pyramid form found in the public schools. It increases regularly from age 6 to age 15 where it is two and one-half times as great. Almost 10 p.c. drop out at 16, 25 p.c. of the remainder at 17, 40 p.c. the following year and for ages 19 or over the number is about equal to attendance at age 6. In the publicly controlled schools attendance is at its peak from 9 to 13, then falls rapidly. At age 15 it is considerably below that at age 7 while total enrolment from 16 up is less than at age 7.

The ratio of male to female teachers in private schools in 1947 was about one to three whereas in the publicly controlled schools it was about one to four.

**7.—Enrolment in Private Elementary and Secondary Schools, by Provinces,  
Specified School Years Ended 1921-47**

NOTE.—Figures for intervening years will be found in the corresponding tables of the 1937, 1942 and 1946 Year Books.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
1921.....	682	3,047	2,607	54,671	9,961	3,149	1,608	2,274	3,159	81,158
1926.....	580	2,956	3,528	54,767	10,126	4,534	2,358	2,281	4,624	85,754
1931.....	570	2,746	3,625	57,320	12,214	5,864	2,853	2,944	5,276	93,412
1940.....	576	2,719	2,707	53,561	13,515	4,632	2,037	3,739	4,911	88,397
1941.....	638	2,986	2,935	55,847	13,458	4,509	1,985	3,813	5,003	91,174
1944.....	803	3,452	3,631	60,803	14,967	4,659	2,545	3,767	5,757	100,384
1945.....	754	3,913	2,843	..	15,911	4,593	3,544	2,032	5,704	39,294 <sup>1</sup>
1946.....	804	3,362	2,903	..	16,336	4,643	3,682	2,852	5,576	40,158 <sup>1</sup>
1947.....	803	3,109	2,841	..	15,694	4,125	3,721	2,507	5,195	37,995 <sup>1</sup>

<sup>1</sup> Not including Quebec.

**Business Colleges.**—Business colleges in 1938 (exclusive of Quebec) enrolled 18,576 pupils of whom 9,648 were full-time day students, 2,141 part-time day students, and 6,787 evening students. About one-third of the pupils were males. In 1947, enrolment numbered 38,800 including 18,862 full-time, 1,724 part-time, and 18,214 evening pupils. This increase is no more than should be expected considering the increase in population. In 1938, there were 441 full-time and part-time teachers and in 1947, 688 teachers. The number of male teachers increased from 133 to 226 during the period.

#### 8.—Enrolment in Private Business and Commercial Schools (Business Colleges), by Provinces, Specified School Years Ended 1921-47

NOTE.—Figures for intervening years will be found in the corresponding tables of the 1937, 1942 and 1946 Year Books.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
1921.....	85	1,280	740	4,319	14,537	3,538	1,333	2,216	1,986	30,034
1926.....	114	766	722	2,743	10,314	3,502	1,436	2,739	2,230	24,566
1931.....	140	775	671	2,807	9,732	3,087	1,400	1,629	2,180	22,421
1940.....	179	740	308	4,032	7,749	1,858	973	1,562	1,955	19,356
1941.....	168	1,019	329	3,707	9,119	1,782	1,431	2,145	2,010	21,710
1944.....	197	881	348	6,256	11,724	2,988	1,869	2,780	3,415	30,458
1945.....	104	684	816	..	11,141	3,532	1,200	2,726	2,906	23,109 <sup>1</sup>
1946.....	181	1,080	805	..	14,901	4,099	1,568	3,482	4,021	30,137 <sup>1</sup>
1947.....	212	1,106	1,119	..	15,024	3,721	1,904	3,855	4,099	30,950 <sup>1</sup>

<sup>1</sup> Not including Quebec.

#### Subsection 4.—Universities and Colleges

The survey of higher education in Canada covers 26 years (1921-46) and records some significant changes in the growth of education at university level in Canada.

Enrolment of university-grade students, including part-time and extra-mural students, increased from 22,600 in 1921 to 92,400 in 1946, an increase from 257 students per 100,000 of population to 751. The number of students registering for post-graduate work was 407 in 1921 as compared with 3,135 in 1946. Provision for students at this level has become a major problem. Approximately 18 universities offer advanced work for the Master's degree or the equivalent French Licence but less than one-half of these accept candidates for the Doctorate. The large majority of the latter register at McGill University and the University of Toronto.

About 139,000 men and women received their first university degrees during the 1921-46 period, representing 4.5 p.c. of the young men and 1.5 p.c. of the young women who reached their early twenties in those years. In the same period, 1,741 Doctorate degrees were conferred and some 13,000 Masterships, Licences and other diplomas.

Teaching staff, until recent years, kept pace with changes in enrolment. The personnel reported at intervals since 1921 was as follows:—

Academic Year	Faculties of Arts and Science		Professional Schools		Totals (excluding duplicates)	
	Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time
1921.....	1,191	242	942	1,179	2,133	1,352
1931.....	1,776	519	1,127	1,705	2,903	2,077
1941.....	2,037	579	1,707	2,420	3,452	2,185
1946.....	2,466	1,010	2,645	2,440	4,937	2,797
1947.....	2,814	1,002	3,078	2,478	5,246	3,441

Enrolment of full-time undergraduate students for the same years was:—

<i>Academic Year</i>	<i>Arts and Science</i>	<i>Professional Schools</i>	<i>Total</i>
1921.....	9,444	12,790	22,234
1931.....	17,711	13,609	31,320
1941.....	18,824	15,669	34,493
1946.....	34,421	27,108	61,529
1947.....	41,457	34,561	76,018

**Graduates.**—Table 9 shows the number of graduates from Canadian universities and colleges in recent years.

**9.—Graduates from Canadian Universities and Colleges, School Years Ended 1939, 1946 and 1947**

NOTE.—Figures for 1920-36 are given at pp. 993-997 of the 1938 Year Book and for 1937-45 in the corresponding tables of subsequent editions.

Course	1939		1946		1947	
	Total	Women	Total	Women	Total	Women
	No	No	No	No	No	No
Graduates in Arts, Pure Science and Commerce—						
Bachelors of Arts <sup>1</sup> .....	3,354	1,119	3,829	1,441	4,414	1,666
Bachelors of Science (in Arts).....	356	55	582	142	688	147
Bachelors of Commerce <sup>2</sup> .....	242	29	338	139	668	58
Totals.....	3,952	1,203	4,749	1,722	5,770	1,871
Graduates in Applied Science—						
Bachelors of Applied Science r						
Engineering.....	629	—	1,007	2	1,096	5
Bachelors of Architecture <sup>3</sup> .....	30	3	29	4	43	7
Bachelors of Forestry.....	21	—	40	—	50	—
Totals.....	680	3	1,076	6	1,189	12
Graduates in Agriculture, Veterinary Science and Household Science—						
Bachelors of Agricultural Science.....	258	3	202	10	238	14
Graduates in Veterinary Science.....	77	1	43	1	149	2
Bachelors of Household Science.....	194	194	187	187	220	220
Totals.....	529	198	432	198	607	236
Teachers' Diplomas and Graduates in Education and Social Service—						
Teachers' diplomas.....	485	..	499	..	508	..
Degrees in Education or Pedagogy.....	100	25	251	64	316	77
Librarians' degrees and diplomas.....	60	56	57	49	104	48
Physical Training degrees and diplomas.....	39	38	34	30	55	39
Social Service degrees and diplomas.....	62	58	74	66	151	117
Totals.....	746	177 <sup>4</sup>	915	209 <sup>4</sup>	1,134	281 <sup>4</sup>
Graduates in Medicine and Related Studies—						
Medical Doctors.....	565	27	628	45	632	47
Dentists.....	111	2	77	1	139	2
Pharmacists.....	190	18	95	15	171	56
Degrees and diplomas in Nursing.....	204	204	457	457	111	111
Physio-therapy and Occupational Therapy.....	34	34	153	153	179	179
Totals.....	1,104	285	1,410	671	1,232	395
Graduates in Law and Theology—						
From Law Schools.....	264	10	161	12	269	12
From Roman Catholic theological colleges.....	348	—	319	—	350	—
From Protestant theological colleges.....	154	19	154	25	127	34

For footnotes, see end of table.



**9.—Graduates from Canadian Universities and Colleges, School Years Ended 1939, 1946 and 1947—concluded**

Course	1939		1946		1947	
	Total	Women	Total	Women	Total	Women
	No	No	No	No	No	No
Post-Graduate and Honorary Degrees—						
Honorary doctorates.....	102	9	134	6	175	8
Doctorates in courses.....	80	7	104	12	115	13
Masters of Arts <sup>5</sup> .....	286	75	318	59	400	79
Masters of Science <sup>6</sup> .....	120	2	145	5	267	16
Bachelors of Divinity.....	42	—	51	—	52	—
Licentiates (except in theology).....	133	10	299	18	279	24
Other post-graduate degrees and diplomas <sup>7</sup> .....	85	7	579	252	705	151
Totals.....	848	110	1,630	352	1,993	291

<sup>1</sup> Includes Bachelors of Letters and of Social Science. <sup>2</sup> Includes Bachelors of Accountancy and Secretarial Science. <sup>3</sup> Includes diplomas in Architecture from the Schools of Fine Arts of Montreal and Quebec.

<sup>4</sup> Excludes teachers' diplomas. <sup>5</sup> Includes M. Com. and M. Ed. or M. Paed.

<sup>6</sup> Includes M.A. Sc., M.S.A., M.Sc.F., M. Arch., M.V. Sc., M. Sc. Dent., M. Surgery (where conferred separately).

<sup>7</sup> Except diplomas for teachers and theologians.

**Financial Status.**—Since the War the universities have undertaken extensive building programs and campaigns for increased endowments and building funds. Returns on capital expenditure for 1947 are incomplete but those reported represent an increase of more than \$2,000,000 over the preceding year. Current expenditures increased about \$8,000,000 in the same period, and endowments and trust funds increased \$10,000,000. Federal Government grants and allowances to the universities, exclusive of fees paid for veteran students which are not separable from those of other students, amounted to about \$4,000,000. Provincial grants for current expenditures represent about \$9,000,000 of a total of \$33,000,000 expended by the larger universities. The value of land, buildings and equipment reached a high point of \$112,409,000 in 1947. Table 10 presents statistics of income and capital resources of the larger universities of Canada at intervals from 1921 to 1947.

**10.—Statistics of Income and Capital Resources of Universities and Colleges, Specified School Years Ended 1921-47**

**NOTE.**—The larger universities and many of the colleges in Canada are included and represent an enrolment of approximately 80 p.c. of the full-time students of university grade throughout the period. The institutions omitted are mainly those conducted by religious orders where teachers receive little or no salary and the financial returns consequently do not represent a comparable record.

Year	Current Income					Deficit <sup>2</sup>	Surplus <sup>2</sup>	Values of Capital Resources		
	From Endowment	Government Grants	Student Fees <sup>1</sup>	Miscellaneous	Total			Land, Buildings and Equipment	Endowment	Trust Funds
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
1921...	1,497	4,522	1,826	1,244	9,089	80	194	48,124	28,328	..
1925...	2,148	5,471	2,380	1,236	11,235	192	132	65,708	42,157	..
1931...	2,258	6,925	3,323	1,455	13,961	600	126	82,493	48,459	..
1941...	2,046	6,804	5,143	2,054	16,047	224	116	95,680	55,082	17,422
1944...	2,323	7,712	5,488	2,730	18,253	48	163	97,096	58,478	22,661
1945...	2,469	8,305	5,701	2,677	19,152	114	192	97,454	60,403	24,163
1946...	2,420	9,721	9,733	3,718	25,592	77	447	102,627	60,384	28,993
1947...	2,364	13,677	13,605	3,630	33,276	735	376	112,409	60,017	38,888

<sup>1</sup> Board and lodging not included.

<sup>2</sup> Combined deficits or surpluses of schools reporting.

**University Training Under the Veterans' Rehabilitation Act.**—Assistance to veterans in training is provided under the Veterans' Rehabilitation Act as outlined in the 1948-49 Year Book at pp. 321-322.

The number of veterans applying for training decreased rapidly during the years ended Mar. 31, 1948 and 1949. In the latter year, only 870 awards were made compared with 4,461 in 1947-48 and 23,015 in 1946-47.

During the academic year 1948-49 there were approximately 24,000 veterans in universities who were receiving assistance through the Department of Veterans Affairs compared with about 33,000 in the previous year. Of 3,300 veterans whose period of service was not sufficient to carry them through the 1948-49 year, 2,400 qualified for continued assistance by securing scholarship standing in their universities. For the year 1947-48, 89 p.c. of the student veterans passed their examinations and won a high proportion of the available scholarships.

The distribution of the 24,000 veterans enrolled in 1948-49, by academic years, was: first year 2,000; second year 5,000; third year 8,000; fourth or subsequent year 7,000; and post-graduates 2,000.

## PART II.—CULTURAL ACTIVITIES RELATED TO EDUCATION

### Section 1.—The Relationship of Art to Education\*

**Fine Art.**—Fine art appears as an elective subject in the curricula of the Faculties of Arts in a number of universities, where it may be taken as one subject among five for a year or two. In some, e.g., Acadia University, N.S., there are half a dozen or more elective courses. In Mount Allison University, N.B., and in the University of Saskatchewan, there is a sufficient number of courses to allow the taking of a Bachelor degree with specialization in fine art. At the University of Toronto, Ont., an Honour B.A. in Art and Archæology is offered as well as graduate work in this field. McGill University, Que., opened a Department of Fine Arts in 1947-48.

There are also schools of art not requiring any fixed academic standing for admission, which concern themselves more with the technical development of the artist. The most widely known of these are:—

Nova Scotia College of Art, Halifax, N.S.

École des Beaux-Arts, Quebec, Que.

École des Beaux-Arts, Montreal, Que.

School of Art and Design, Museum of Fine Arts, Montreal, Que.

Ontario College of Art, Toronto, Ont.

Winnipeg School of Art, Winnipeg, Man.

Provincial Institute of Technology and Art, affiliated with the University of Alberta, Calgary, Alta. (Summer session at Banff, Alta.)

Vancouver School of Art, Vancouver, B.C.

Courses in these schools vary in length with the requirements of the individual student, but may extend over as many as four years.

Public art galleries and museums in the principal cities perform valuable educational services among adults and children. Children's Saturday classes, conducted tours for school pupils and adults, radio talks, lectures and often concerts are features of the programs of the various galleries. In many cases these institu-

\* Revised under the direction of H. O. McCurry, Director, National Gallery of Canada, Ottawa.

tions supply their surrounding areas with travelling exhibitions, while the National Gallery of Canada carries on a nation-wide program of this nature (see pp. 366-367).

The principal art galleries and museums\* are:—

New Brunswick Museum, Saint John, N.B.  
 Museum of the Province of Quebec, Quebec, Que.  
 Montreal Museum of Fine Arts, Montreal, Que.  
 National Gallery of Canada, Ottawa, Ont.  
 National Museum of Canada, Ottawa, Ont.  
 London Public Library and Art Museum, London, Ont.  
 Art Gallery of Toronto, Toronto, Ont.  
 Royal Ontario Museum, Toronto, Ont.  
 Willistead Library and Art Gallery, Windsor, Ont.  
 Winnipeg Art Gallery, Winnipeg, Man.  
 Edmonton Museum of Arts, Edmonton, Alta.  
 Vancouver Art Gallery, Vancouver, B.C.

**Art Organizations.**—A development of special interest in the field of the creative arts was the establishment, in December, 1945, of the Canadian Arts Council. The Council grew out of the united action taken by its constituent associations in the spring of 1944, when they presented an integrated series of briefs to the Special Committee of the House of Commons on Reconstruction and Re-establishment. These briefs looked forward to a post-war society in which the arts would be "more widely distributed and more closely integrated with the life of our people". The Council has accordingly taken a very active interest in the development of the Community Centre idea.

The basic situation claimed by the Council is that "in Canada there are millions who have never seen an original work of art, nor attended a symphony concert or a professionally produced play, while in our largest cities thousands of professional creative artists enjoy a field so limited that they are forced into activities unsuited to their talents". Chief among the proposals for remedying the situation is the establishment of "a government body to promote a national cultural program and provide music, drama, art, and film services for all our people". Other proposals have in view the improvement of industrial design, and housing and town planning.

To list the names of the 16 bodies constituting the Council is to give some indication of the range of professional organization in the field of the arts in Canada:—

The Royal Canadian Academy of Arts  
 The Royal Architectural Institute of Canada  
 The Sculptors' Society of Canada  
 The Canadian Society of Painters in Water Colour  
 The Canadian Society of Painter-Etchers and Engravers  
 The Canadian Group of Painters  
 The Canadian Society of Graphic Arts  
 The Federation of Canadian Artists  
 The Canadian Authors' Association  
 La Société des Écrivains Canadiens  
 The Music Committee  
 The Canadian Society of Landscape Architects and Townplanners  
 The Dominion Drama Festival  
 The Canadian Handicrafts Guild  
 The Canadian Guild of Potters  
 The Arts and Letters Club.

\* A complete list of Canadian art museums, societies and schools is included in the *American Art Annual* (New York, 1948).

**The Role of the National Gallery of Canada.** --Founded in 1880 by the Marquis of Lorne, the National Gallery at first served mainly as an exhibition gallery. Provided with an Advisory Arts Council in 1907, and incorporated under a Board of Trustees in 1913, it has assembled its permanent collection largely during the latest 40 years. This collection of pictures and sculpture, prints and drawings, representing the styles of past and present of various parts of the world was assembled for public enjoyment, study and the improvement of arts and industrial products and as the necessary basis for any program of art education. The collection of the National Gallery to-day is of international repute and is accessible to the whole country by means of catalogues, photographs and colour reproductions and to a limited extent by loans. The Canadian Section, naturally the most inclusive, is the best available source for the study of Canadian art.

In 1946, the Massey Collection of 75 English paintings was presented by the Rt. Hon. Vincent Massey, C.H., and Mrs. Massey as trustees of the Massey Foundation. In 1948 the donors made a further gift. Now comprising 86 pictures, the Massey Collection makes the National Gallery a leading centre for the study of British art, and is the largest gift in the Gallery's history. Among other recent acquisitions and gifts are paintings by Quentin Massys, Murillo, and Richard Wilson. Additions to the Canadian Section include a group of important works from the early primitives to the present day. A new catalogue of the paintings in the National Gallery was published in 1948. The Department of Prints and Drawings made in 1948 what is probably the most important acquisition in its history: the Artaria collection of the "Iconography" of Van Dyck, including many extremely rare etchings and engravings. Drawings by Claude le Lorrain, Lorenzo Costa, Rowlandson, Cotman and others, have also been added by this Department.

Exhibitions of the art of other countries organized at the National Gallery during 1948 and 1949 include the following: *Masterpieces of Dutch Painting*, composed of pictures looted by the enemy during the War and lent by the Netherlands Government in recognition of the part played by Canadian and United States forces in their recovery; *British Drawings*; *Helene Schjerfbeck* (Finland); *The Hickman Bacon Collection of English Water Colours*; *South African Art*; *Paul Nash* (Great Britain). Special Canadian exhibitions included the *Prudence Heward* and *Peggy Nicol MacLeod* memorial exhibitions and a retrospective showing of *Lawren Harris*. The more important of the exhibitions sent abroad by the National Gallery during the year include the following: *Canadian Painters*, Virginia Museum, Richmond, U.S.A., February-March, 1949; *Forty Years of Canadian Painting*, Museum of Fine Arts, Boston, U.S.A., July-September, 1949; *The Massey Collection of English Painting*, Australia and New Zealand galleries, 1949-50.

The National Gallery carries out a program of extension work throughout Canada. Travelling exhibitions of the art of Canada and other countries are shipped through the country under the Gallery's auspices. About 25 such exhibitions, including those of the several chartered art societies, are circulated and other responsible organizations in various regions draw annually upon the services of the Gallery as the source of a great part of their offerings to the public. In this way actual works of art are constantly being brought to the attention of the Canadian people.

As the latest development in its general educational work the National Gallery established in 1948 a Design Index as the result of the public interest in bringing the design of Canadian goods up to the best international standards and in fostering distinctive Canadian designs. A number of exhibitions on Canadian industrial art have been held in various parts of the country.



Other methods of education in the arts apply more specifically to young people and are designed, in part, to supplement regular school work. Thus the Gallery provides material such as written lectures illustrated by lantern slides on all aspects of art history, reproductions of paintings with introductory texts for art appreciation, school broadcasts, classes for school children at the Gallery, exhibitions of children's work, conducted tours of the Gallery's collections and educational demonstrations, public lectures at Ottawa, and lecture tours throughout Canada.

The National Gallery also lends art films, including the colour and sound film *Canadian Landscape*, made in conjunction with the National Film Board and featuring the work of modern Canadian artists against a historical background of landscape painting in Canada since Krieghoff. The silk screen prints by Canadian artists, already famous in many parts of the world as the result of their distribution during the War, are available to schools and the public generally. These and other reproductions are listed in the Gallery's publication, *Reproductions, Publications, and Educational Material*. The magazine *Canadian Art*, in the publication of which the National Gallery takes a leading part, has doubled its circulation since 1945.

**Museums and Art Galleries.**—At pp. 1025-1026 of the 1939 Year Book a list of the museums (including art galleries) in Canada employing full-time staff is published, showing floor space and average daily attendance of each. There has been no official detailed report published by the Dominion Bureau of Statistics on this subject since 1938.

In 1947, the Canadian Museums Association was formed with the object of aiding in the improvement of the services of museums as educational institutions by promoting co-operation between them, by exchanges with other countries, and by the training and securing of expert staffs.

## Section 2.—The Educational and Cultural Functions of the National Film Board\*

Canada has seen a great advance in the use of films in education, both formal and informal, for adults as well as children. The National Film Board has contributed very largely to this development. It has produced and distributed more than 1,200 informational films, made available to Canadian schools and adult organizations some of the better films produced in other countries, assisted in the establishing and servicing of about 235 film libraries and depots, provided film programs regularly to several thousand rural communities, and assisted in making educational films available to hundreds of thousands of Canadian school children. In all these activities the Board has worked closely with provincial Departments of Education, national and provincial organizations engaged in educational work, and community organizations of all kinds. The object has been to assist all educational agencies to obtain and use visual material to strengthen their educational programs, as well as to bring to the largest possible section of the Canadian public those films that interpret Canadian and world affairs.

**Film Libraries.**—In Canada, the backbone of urban 16mm film distribution is the film libraries that have been established throughout all provinces by the Board and by local bodies such as public libraries, normal schools, provincial Departments of Education, university extension departments and, more recently, community

\* Prepared under the direction of Ross McLean, Film Commissioner, National Film Board, by Stanley Rands, Co-ordinator, Research and Reports. The non-educational services of the National Film Board are outlined in Chapter XXX on Sources of Official Statistical and Other Information Relative to Canada.

film councils. The majority of Canadian communities with populations of more than 5,000 now have their own film libraries which numbered 235 by the end of 1948. Nearly 250 Film Councils and local film committees assist in encouraging the use of informative and educational films in the community.

**Special Educational Services.**—Special services have been developed for industry, women's organizations, scientific and engineering groups, health and medical bodies, and in other specialized fields such as education, science, welfare, reconstruction and housing to assist in building suitable programs of films and other materials for all interested organizations. To serve their film needs, the Board maintains at Ottawa a Preview Library of 2,600 titles.

**Rural Film Circuits.**—Rural areas that lack projectors and film libraries are served with monthly film programs by the Board's rural circuits. An increasing number of circuits are operated in co-operation with farm organizations and provincial and local governments. The careful planning of the rural film programs, together with discussion booklets for teachers and group leaders, relate them closely to the work and interests of the communities they serve. Each rural circuit reaches about 20 locations each month bringing a program in the afternoon to school children and in the evening to general audiences. Films are chosen for the value and interest of the information they contain. The program for schools is chosen in consultation with the Department of Education in each province. Many thousands of Canadian school children have had their first opportunity to see educational films regularly through the Film Board's rural circuits. Through their co-operation with farm organizations, extension departments of universities, and provincial Departments of Education, Health, and Agriculture, the Board's rural representatives have come to be regarded as valued servants of the community.

### Section 3.—The Educational and Cultural Functions of the Canadian Broadcasting Corporation\*

The Canadian Broadcasting Corporation devotes a considerable portion of its broadcast time on the English- and French-language networks to programs of an educational nature directed to both children and adults. When possible, education and entertainment are combined.

**Pre-School Broadcasts.**—All over the country, and particularly in rural areas, there are children of pre-school age who cannot enjoy the advantages of nursery school or kindergarten training. For them, the CBC provides one of its most successful educational programs, *Kindergarten of the Air*, fifteen minutes each weekday. This program is carefully planned with the advice of kindergarten experts and representatives of the Federation of Home and School, Women's Institutes and the Junior League; it gives the children instruction in the learning of songs, listening to stories, participation in play exercises, and the development of other activities suitable to their age level.

**School Broadcasts.**—The CBC co-operates with the provincial Departments of Education in Canada in providing special programs related to the courses of study which are heard in the classrooms as a regular portion of the school work.

\* Revised under the direction of Dr. Augustin Frigon, C.M.G., General Manager, Canadian Broadcasting Corporation, Ottawa. The non-educational services of the CBC are outlined in Part VII, Sect. 3, Chapter XX on Transportation and Communications.

At the request of the Department of Mines and Resources it also provides recordings of school programs which are broadcast by the Canadian Army radio station at Aklavik to schools in the Northwest Territories and Yukon.

In addition to the provincial broadcasts, the CBC itself prepares and finances a series of *National School Broadcasts* heard in classrooms from coast to coast. They are prepared with the advice of the National Advisory Council on National School Broadcasting, consisting of representatives of each of the provincial Departments of Education, the Canadian Teachers' Federation, the Canadian Federation of Home and School, the Conference of Canadian Universities, and the Canadian Trustees' Association. The National School Broadcast program aims to develop a healthy sense of citizenship in students by giving them information about their cultural heritage, and Canada's achievements and responsibilities in the world, as well as its development as a nation.

During the 1948-49 season, twenty-six *National School Broadcasts* presented a series of Canadian books in dramatic form and a group of Indian legends, dramatized stories of famous Canadian citizens, actuality broadcasts about the national importance of the postal services, the railways, Trans-Canada Airways and the Royal Canadian Mounted Police, two symphony concerts and a complete radio version of Shakespeare's *Julius Caesar*. A new development in the *National School Broadcast* program was the inclusion, as an experiment, of three exchange broadcasts with the Commonwealth countries of England, Australia and South Africa. This highly successful program resulted in a conference with the educational representatives of the British Broadcasting Corporation and the Australian Broadcasting Commission for the planning of a more extensive system of exchange broadcasts among Commonwealth nations.

During the season also a number of transcribed British school broadcasts were introduced which, at the request of educational authorities, were presented as a supplementary educational program in various provinces.

Particulars of all school broadcasts in Canada are contained in the manual *Young Canada Listens* published each year by the CBC and circulated among teachers and educational authorities.

**Adult Education.**—Programs of an adult educational nature are presented on all CBC networks in a variety of forms and on a wide range of subjects including national and international affairs, political broadcasts, business and labour interests, women's interests, community activities and social problems, literature and creative writing, science, nature and sports. *Citizens' Forum*, a discussion program on public affairs, is now in its sixth year. Broadcasts usually originate from public meetings. The series is produced in co-operation with the Canadian Association for Adult Education which has organized about five hundred listening groups across the country. This Association, with the Canadian Federation of Agriculture, helps in the preparation of another CBC series, *National Farm Radio Forum*, on which farmers from all parts of Canada are able to exchange views and discuss their problems. Now in its ninth year, *Farm Radio Forum* is followed by more than 1,500 listening groups throughout rural Canada. Both these discussion programs have their counterparts on the CBC French network.

Two significant programs which have been inaugurated more recently are *Cross Section*, which deals in documentary style with economic and social issues and questions of special concern to business and labour, and *In Search of Ourselves*,



a series on human relations prepared in co-operation with the National Committee on Mental Hygiene. This program is used in discussion by several hundred listening groups organized by Home and School Associations.

In the autumn of 1948 a special series *In Search of Citizens* was arranged in co-operation with interested Federal and Provincial Government Departments to acquaint Canadians with some of the problems of newly arrived immigrants. Regular commentaries on national and international affairs are heard in *Capital Report*, *Weekend Review* and *United Nations Commentary*.

In order to present commentaries on the European scene, the CBC maintains an overseas bureau with headquarters at London, England. It also has an office and a resident correspondent at the United Nations headquarters, Lake Success, N.Y.

Special programs for women in both English and French offer practical information on household problems, citizenship, community organization, child psychology, and on national and international questions that have special appeal for women.

**Music and Drama.**—During the 1948-49 season the CBC formed two opera companies for the performance of light operas and four grand operas—*La Bohème*, *Orpheus*, *La Traviata*, and *Don Giovanni*—on the special *Wednesday Night* program. Other high-lights of the season were the broadcasting, in their entirety, of Bach's *St. Matthew Passion* and Handel's *Messiah*, and two programs of two and a half hours each, heard on successive Wednesday nights, entitled *A Layman's History of Music*. These programs traced the development of music from the origin of melody and rhythm to the music of the present day. Regularly scheduled symphonic concerts continued to be heard, and music appreciation was fostered by special music programs for children. Many young Canadian musicians were heard in recital periods.

Significant drama productions during the year included the two and a half hour feature *A Day in the Life of Samuel Johnson*, and productions of Ibsen's *Ghosts*, and *Hedda Gabler*; Sean O'Casey's *Juno and the Paycock*; Tolstoy's *The Power of Darkness*; Shakespeare's *Julius Caesar*, *Twelfth Night*, *Hamlet*, and *King Richard II*; Ansky's *The Dybbuk*; and many original radio plays. About 90 p.c. of CBC drama productions, both original plays and adaptations, are by Canadian writers.

#### Section 4.—Royal Commission on National Development in the Arts, Letters and Sciences

There has been an increasing awareness in recent years that the Canadian people should be given the opportunity to learn as much as possible about their country, its history and traditions, art, literature and culture, their national life and common achievements, and that it is in the national interest to give encouragement to institutions which, though not strictly educational, express national feeling, promote common understanding and add to the variety and richness of Canadian life.

The desire of the Government to meet this development has resulted in the appointment of a Royal Commission on National Development in the Arts, Letters and Science, with wide terms of reference, to explore this situation.



P.C. 1786 of Apr. 8, 1949, established a Royal Commission to examine and make recommendations upon:—

- (1) The principles upon which the policy of Canada should be based in the fields of radio and television broadcasting.
- (2) Such agencies and activities of the Government of Canada as the National Film Board, the National Gallery, the National Museum, the Public Archives and the care and custody of public records, the Library of Parliament; methods by which research is aided including grants for scholarships through various Federal Government agencies; the eventual character and scope of the National Library; the scope or activities of these agencies, the manner in which they should be conducted, financed and controlled, and other matters relevant thereto.
- (3) Methods by which the relations of Canada with the United Nations Educational, Scientific and Cultural Organization and with other organizations operating in this field should be conducted.
- (4) Relations of the Government of Canada and any of its agencies with various national voluntary bodies operating in the field with which this inquiry will be concerned.

Public hearings were held at Ottawa from Aug. 3 to Sept. 8, 1949, and briefs were heard relating to all matters included in the terms of reference from about thirty national organizations or representatives of government agencies.

From Oct. 11 to Nov. 5, 1949, the Commission's schedule called for hearings in Western Canada. The remainder of November was reserved for hearings at Toronto and Montreal; and from Jan. 10 to Jan. 29, 1950, sessions were arranged for Quebec City and the Maritime Provinces.

### Section 5.—Public Libraries

The statistical survey of the public libraries of Canada for 1946-48 shows record expenditures for public library service for 1947 amounting to \$3,931,000, as compared with \$2,890,000 for 1945 and \$2,041,000 for 1937. Expenditures for reading material advanced from \$584,000 in 1945 to \$812,000 in 1947 and the number of volumes available for circulation increased 475,000 to a peak of 6,431,000. Provincial grants increased 56 p.c. compared with 1945 largely due to legislation in Ontario which provided for grants based on salaries paid and book stock.

Book circulation dropped almost to the level of 1937, a feature common to the library service of other countries at the time, but also due in part to the fact that the library services of Nova Scotia, Manitoba, Saskatchewan and Alberta were undergoing considerable re-organization which delayed the normal progression of circulation statistics for Canada.

To counteract the decrease in recorded loans of reading material, the libraries reported progress in their auxiliary services such as the loans of films, musical records, and art reproductions. As a comparatively new public library service, almost 100 of the 680 public libraries reported films, on deposit or owned, available for loan to the public. Returns from 40 libraries reported 4,000 films available for loans (2,996 on deposit), 22,682 showings, and a total audience of 2,199,342 people.

There was an increase in the number of regional libraries and in specialized services for children. In Ontario, 12 county library co-operatives and 6 township libraries were organized, one additional in each group since 1945; Nova Scotia organized the Annapolis Valley library and was working on other groups as were the three Prairie Provinces, Manitoba, Saskatchewan and Alberta. Services for children and teen-agers in the cities recorded a circulation of 36 books per reader for

1947. There were eight special libraries for children only—one at Halifax and seven at Montreal—and 49 special departments for children and juveniles within large public libraries. The services included film showings, art classes, music appreciation classes, puppet shows and drama.

### 11.—Public Libraries, Exclusive of Regional Libraries, by Provinces, 1947

Province	In Urban Centres—		In Non-Incorporated Communities	Total
	Over 10,000 Population	Under 10,000 Population		
	No.	No.	No.	No.
Prince Edward Island.....	—	—	—	—
Nova Scotia.....	5	8	3	16
New Brunswick.....	4	3	2	9
Quebec.....	20	11	—	31
Ontario.....	31	230	201	462
Manitoba.....	2	4	2	8
Saskatchewan.....	4	53	3	60
Alberta.....	4	55	7	66
British Columbia.....	3	18	7	28
<b>Totals.....</b>	<b>73</b>	<b>382</b>	<b>225</b>	<b>680</b>

### 12.—Book Stocks, Circulation and Expenditures of Public Libraries, 1947

Province or Territory	Volumes	Circulation	Borrowers	Expenditures
	No.	No.	No.	\$
Prince Edward Island.....	67,498	174,133	8,193	21,907
Nova Scotia.....	118,196	89,405	15,877	27,396
New Brunswick.....	107,410	154,915	10,071	30,897
Quebec.....	864,381	1,079,629	55,504	468,071
Ontario.....	4,068,245	13,019,832	767,737	2,419,383
Manitoba.....	140,706	692,346	45,327	156,583
Saskatchewan.....	266,527	878,325	55,427	166,768
Alberta.....	308,168	1,476,895	67,127	205,529
British Columbia.....	479,899	2,149,431	143,209	432,428
Yukon.....	10,200	6,500	125	1,597
<b>Totals .....</b>	<b>6,431,230</b>	<b>19,721,411</b>	<b>1,168,597</b>	<b>3,930,559</b>

## Section 6.—Canada and the United Nations Educational, Scientific and Cultural Organization

The origin of the United Nations Educational, Scientific and Cultural Organization and its activities up to the First Session of the General Conference (held at Paris in November, 1946) are outlined at pp. 313-315 of the 1947 Year Book. The Second Session of the General Conference was held at Mexico City, Nov. 6 to Dec. 4, 1947, and the program adopted was described briefly at pp. 338-339 of the 1948-49 Year Book.

The Third Session of the General Conference was held at Beirut, Lebanon, Nov. 17 to Dec. 11, 1948. A report of the Canadian delegation (49 pp. mimeographed) is available from the Department of External Affairs.

## PART III.—SCIENTIFIC AND INDUSTRIAL RESEARCH

### Section 1.—The National Research Council\*

Organized research on a national basis in Canada dates from 1916 when, at the suggestion of the Government of Great Britain, the Canadian Government established the "Honorary Advisory Council for Scientific and Industrial Research" under a Committee of the Privy Council. Provision was thereby made for the planning and integration of research work and the organization of co-operative investigations; the post-graduate training of research workers; and the prosecution of research through grants-in-aid to university professors. This was the basis of the Council's work from 1916 to 1924.

The Council early recommended the establishment of national laboratories and a Special Committee of Parliament, appointed to study this recommendation, endorsed the proposal after having heard the opinions of many experts. Financial difficulties intervened, but in 1924 public opinion made it possible to have the Research Council Act passed by Parliament. Temporary laboratories were secured and research on the utilization of magnesian limestones for refractories was carried out so successfully that a wartime industry, established during the First World War, was re-established on a large scale, and has become a producer of materials that have found world-wide markets. As a result, in 1929-30, the Government provided funds for new laboratories.

The National Research Building on Sussex Street, Ottawa, was opened in 1932 and in 1939 construction of the aerodynamics building on a 130-acre site adjacent to the Ottawa Air Station was started. Later several other buildings were erected on this site, including separate laboratories for research on engines, gas and oil, hydraulics, explosives and structures, and wood-working and metal-working shops. Since then these facilities have been enlarged and extended and new buildings have been provided for engineering and for low-temperature studies.

A Prairie Regional Laboratory, constructed on the campus of the University of Saskatchewan, was opened in June, 1948. A Maritime Regional Laboratory is soon to be built on Dalhousie University campus at Halifax, N.S.

Administration of the Atomic Energy Project at Chalk River, Ont., was taken over by the National Research Council on Feb. 1, 1947, and operations are being continued in accordance with broad general policies fixed from time to time by the Atomic Energy Control Board.

Laboratories now in operation under the National Research Council include Research, Health and Engineering Divisions of the Atomic Energy Project at Chalk River; and at Ottawa, Applied Biology, Building Research, Pure and Applied Chemistry, Mechanical Engineering (aeronautics and hydraulics), Physics, and Radio and Electrical Engineering. Medical research is carried on by means of grants to accredited workers in the various medical schools and university hospitals. A Division of Information Services has a field staff of technical officers whose job is to assist the smaller industries across Canada in bringing their operating problems to the attention of the Council. With the extensive library facilities available to the Council, it is usually possible to provide the required information in a very short time.

\* Revised under the direction of C. J. Mackenzie, C.M.G., F.R.S., President, National Research Council, Ottawa.



In addition to its Technical Information Service, the National Research Council is of service to industry in two other main ways. First, it encourages scientists from industry to visit the laboratories of the Council and in turn sends its men to visit industrial laboratories. A free and constant flow of personnel and information is thus maintained between the Council and most industries that have laboratories. The aim is to have Canadian industry use the Council's laboratories just as the units of a large company use their own laboratories as sources of scientific information and assistance.

Secondly, the Council undertakes, under contract, research work for any firm which has a problem that cannot be solved by private consulting and testing laboratories, and also obtains assistance, in return, from many companies. The Council has long-standing and intimate contacts of this co-operative kind with many Canadian industries in different fields—refractories, oils, metals, chemicals and transport, to mention only a few examples.

Promotion of research training of scientific workers has been carried on by the National Research Council since its inception along three lines: (1) scholarships awarded annually to carefully selected university students who show an aptitude for research; (2) assisted research grants to heads of science departments in the universities for the employment of junior assistants and the purchase of special equipment for research purposes; (3) award of post-graduate and post-doctorate fellowships in the natural sciences and in medicine.

**Principal Activities, 1948-49.**—With a staff of more than 2,600 persons, many of whom have won wide recognition in their respective fields, the Council now occupies a very creditable place in the scientific world. In 1948, for the first time, the Council awarded 19 post-doctorate fellowships each tenable for one year in the Division of Chemistry. Holders of these fellowships include men trained in English and Scottish universities and institutions in Holland and Denmark. Heretofore, the trend in post-graduate research has always been from Canada to other countries, mostly the United States and Europe. It is a mark of progress that the flow of scientists is now moving in both directions.

At the Atomic Energy Project, the experimental NRX pile has been producing successfully the highest neutron flux density of any research pile in existence, and has afforded opportunities for carrying out investigations of a fundamental nature as well as permitting irradiation of nearly 600 different samples for the production of radioactive isotopes. The Isotopes Branch has distributed 34 different isotopes to 21 institutions for experimental work in pure and applied science. To stimulate the use of the products of the Chalk River pile, a conference on Industrial Uses of Radioactive Isotopes was held at Ottawa in December, 1948, which was attended by more than 100 representatives from Canadian industries.

In the Division of Applied Biology, many problems of industrial interest are being investigated, particularly the preservation of foodstuffs and the industrial utilization of wastes and surpluses. During 1948, more work of a fundamental nature was initiated to establish a reasonable balance between the various applied and fundamental research activities.

Construction of the Prairie Regional Laboratory at Saskatoon, Sask., was completed in 1948; five laboratories were equipped and partially staffed. Two crop-utilization projects, oil seeds and agricultural residues, are in progress and work is soon to be undertaken on proteins and carbohydrates. In the field of industrial



fermentations three laboratories are operating; bacteriology, mycology, and fermentation chemistry. One additional unit, assigned to the more specialized field of antibiotics and enzyme chemistry, is in prospect. Pilot-plant equipment for the evaluation of industrial fermentation processes has been designed and ordered and plans prepared for cold rooms, necessary in enzyme and microbiological studies.

The Division of Building Research, which started its work during 1948, was instituted by the Council in order to provide a research service to the construction industry of Canada. Attention has been concentrated on house construction. The Division is designing a special facility to be installed in the Prairie Regional Laboratory whereby complete wall sections (measuring up to 7 ft. by 8 ft.) can be tested under completely controlled conditions of temperature and humidity. A Building Code Conference, held Feb. 28 and Mar. 1, 1949, under the auspices of the Associate Committee on the National Building Code, was highly successful in bringing together inspectors, municipal officials, and other representatives of organizations concerned with the preparation, administration, or general use of municipal building codes.

A soil mechanics laboratory has been set up and work on snow and ice is proceeding in co-operation with other organizations interested in this field.

In the Pure Chemistry Branch, a variety of photochemical and other kinetic investigations have been made on ether, acetone, acetaldehyde, ethylene oxide and a number of hydrocarbons. Radioactive carbon is being used to label particular functional groups as desired in order to follow their course in some photochemical reactions. Measurements have been made of the adsorption of some simple gases on potassium chloride over a range of temperatures. In the section on thermodynamic properties of gases, the compressibility of pure helium has been measured with a high degree of accuracy in the temperature range 0°C. to 600°C. The mass spectrometer has been put into operation and is now being calibrated. Investigation of plants has been continued in search of new alkaloids and a few new natural bases have been discovered. Work has been continued on the study of the infra-red adsorption spectra of complex organic compounds, particularly of compounds of biological importance. The fibre section has continued the investigation of the acid dyeing of wool. A study of the various factors affecting the air permeability of fabrics has been initiated.

One of the functions of the Applied Chemistry Branch of the Division of Chemistry is to act in an advisory capacity to government departments in questions relating to the supply or the testing of chemicals. In addition the Branch has continued to carry on research on a number of projects in the fields of chemical engineering, textiles, corrosion, rubber, protective coatings, applied physical chemistry, industrial organic chemistry, and organic synthesis. These projects are directed mainly towards the application of new scientific knowledge in the chemical industrial field.

The Technical Information Service, which was set up to aid the development of manufacturing efficiency by answering technical questions for industry, deals with about 400 inquiries a month. Although most of the answers to these inquiries are prepared by the Council's staff, valuable assistance is provided by experts in several other organizations, especially the Forest Products Laboratories and the Bureau of Mines.

The research program of the Division of Medical Research is entirely extra-mural. Research problems are supported by grants-in-aid, and training is provided by the appointment of Research Fellows. Most of the work under the Division is done in Canadian Medical Schools. The Research Fellowship program of the Division, established in 1946, has filled an obvious need in the provision of research training for medical graduates.

The scope of the Division of Mechanical Engineering includes aeronautics and hydrodynamics as well as phases of mechanical engineering. The aeronautical laboratories provide the Canadian aviation industry, both constructors and operators, with research, development and testing facilities, and the laboratories also function as the research organization of the Royal Canadian Air Force. Provision is made for work in almost all fields of aeronautics, including aerodynamics, gas dynamics, power plants, structures, and fuels and lubricants.

The cold chambers of the recently opened low-temperature laboratory have been in almost continuous use on projects for the Department of National Defence and industry. Construction of the refrigerated wind-tunnel is nearing completion. In the hydraulics laboratory further work was done on the model of the Fraser River for the Department of Public Works. Arrangements have been made with the University of British Columbia for the construction of a larger model at the University and further tests. Other model work has included studies of spillways, log chutes and log diversion relative to power plants.

Work in the physics laboratories is both fundamental and applied in character. Pure science is represented by studies in spectroscopy, carried on by a group of specialists in this field. Cosmic rays, precision electrical standards and radio-activity also present problems in pure physics.

On the practical side several investigations are in progress. Studies on the thermostatic control of refrigerator cars have been continued. Research is proceeding on the thermal conductivity of metals at high temperatures. Progress has been made in studies on migration of moisture through wood; apparatus for measuring thermal conductivity of textiles in still air and in wind has been further developed; and the project on panel heating of houses has been continued.

A substantial volume of work passes through the metrology laboratory. This unit is responsible for the custody and periodical checking of Canada's national standards of measurement.

Aid has been given in the modification of equipment used for geophysical prospecting. Practical results have been obtained in colorimetry tests on railway fuseses, and a great amount of work has been done in assessing the performance of aerial camera lenses. A motion picture camera capable of taking photographs at 200,000 frames per second has been built. Numerous types of precision instruments are being designed and built for use in laboratory studies both in physics and in other fields of science.

The Radio and Electrical Engineering Division carries on fundamental research in radar, radiophysics and applications of radar techniques to peacetime problems, and does a great deal of work for the Armed Services. Electrical equipment needed by other laboratory divisions is also designed and built as required. The Division is co-operating with the Meteorological Service and other government departments. Mention may be made of the use of radar in studying meteors. Electromagnetic

radiation from the sun on microwave and metre wavelengths is also being studied. Marine radar equipment has been developed and many sets are now in use as aids to navigation.

## Section 2. — Other Scientific and Industrial Research Facilities

Aside from the work of the National Research Council, which is the central national organization for research, research is carried on by the Departments of Agriculture, Mines and Resources, Fisheries, the Board of Grain Commissioners and the Dominion Observatories. These bodies have trained permanent scientific staffs for investigation and research in their own fields such as soil problems, crops, breeding and testing of animals, processing and marketing, extractive and physical metallurgy, silvicultural and forest products, hydrography, ocean and mollusk fisheries, etc. The research and experimentation carried on by the Science Service is outlined in the Agriculture Chapter at pp. 406-409. The work of the Experimental Farms System is described at pp. 349-352 of the 1948-49 edition of the Year Book. Specialized work in scientific forest research is described in the Forestry Chapter at pp. 468-469.

The Board of Grain Commissioners employs a staff of seven chemists and 21 assistants in the main research laboratories for milling, baking, malting, etc., while the Dominion Observatories carry out research in the fields of solar physics, astrophysics, seismology, terrestrial magnetism, gravity and other studies.

Universities often show bold initiative in exploring the field of scientific research but with the limited facilities at their disposal the task of carrying their discoveries to a conclusion is not always easy. Government and industrial laboratories are often able to pick up and carry on where the universities leave off.

A number of research foundations have their own special fields of research. The Ontario Research Foundation at Toronto, Ont., established in 1928, is an independent non-profit-seeking scientific organization available to the public and to industry for assistance in matters of a technological character.

The Banting Research Foundation supports the work of the Banting and Best Chair of Medical Research in the University of Toronto and aids medical research throughout Canada.

The Rockefeller Foundation assists various agencies in Canada in the furtherance of scientific research in medical science, natural science, social science and public health.

A detailed account of scientific and industrial research in Canada is given at pp. 979-1012 of the 1940 Year Book. This has been revised to cover developments to 1947 and is available in reprint form from the Dominion Statistician.

# CHAPTER X.—NATIONAL ACCOUNTS AND RELATED ECONOMIC STATISTICS

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

## PART I.—NATIONAL ACCOUNTS\*

The national accounts which summarize the nation's economic transactions make possible the study of interrelationships in the economic system as a whole. They are particularly important to governments concerned with problems of full employment, taxation and prices and to business men concerned with programs of investment and marketing.

The national accounts provide a summary of production and consumption in terms of prices established in the market. The value of the nation's production may change either because of price changes or because of changes in the volume of output. When the resources of the economy are fully employed the volume of goods and services produced can usually increase but slowly from one year to the next since the increase is then dependent on the annual increment to resources of labour and capital or their more efficient utilization. Consequently a rapid rise in the value of output under these conditions is explained mainly by price increases. When there are unemployed resources in the country, a substantial increase in the value of production of goods and services may occur from one year to the next as these resources are brought into use, even though prices remain stable. Since the following tables are expressed in current dollars, year to year changes must be considered in relation to price changes over the period.

The tables presented here cover only part of the complete national accounts analysis. Tables 1 and 2 give the main aggregates of national income, gross national product and expenditure and their components. Tables are also included showing personal income and disposition of personal income; government revenue and expenditure; and source and disposition of private saving. Further information can be obtained by reference to National Accounts bulletins published by the Dominion Bureau of Statistics.†

*National Income.*—Net national income at factor cost or, more briefly, national income, measures the value of goods and services produced by the labour and capital of Canadian residents in a year, after provision has been made for depreciation of capital assets employed in production, and exclusive of indirect taxes less subsidies. For the economy as a whole this total equals the earnings of residents of Canada from the production of goods and services, that is, the sum of salaries and wages, profits, interest, net rent, and net income of agriculture and other unincorporated business.

\* Prepared by the Research and Development staff, Dominion Bureau of Statistics.

† Reference may be made to *National Accounts, Income and Expenditure 1941-1948* (revised September, 1949), and previous editions of the same publication for 1938-45, 1926-47 and 1939-47 for concepts, methods and sources as well as more complete detail.



*Gross National Product.*—Gross national product measures the value of goods and services produced, at the prices at which they are purchased in the market. Accordingly, to obtain the gross national product it is necessary to add to the national income provisions for depreciation and indirect taxes less subsidies.

*Gross National Expenditure.*—Gross national expenditure measures the same aggregate as gross national product, namely, the total production of goods and services at market prices. However, gross national product is measured in terms of costs, whereas gross national expenditure is obtained by adding together all sales and adjusting them for imports and changes in inventories. Four broad types of sales can be distinguished: sales to persons, to governments, to business for capital account (gross investment at home including changes in inventories), and to foreigners, (exports). The total of these sales includes imports of goods and services. Since the purpose is to measure only production of labour and capital of residents residents of Canada, imports of goods and services are deducted.

*Personal Income.*—Personal income is the sum of current receipts of income whether or not these receipts are earnings from production. Thus, it includes salaries and wages, net income of unincorporated enterprise, interest, dividends and net rentals of persons and transfer payments from governments, such as family allowances, unemployment insurance benefits and war service gratuities.

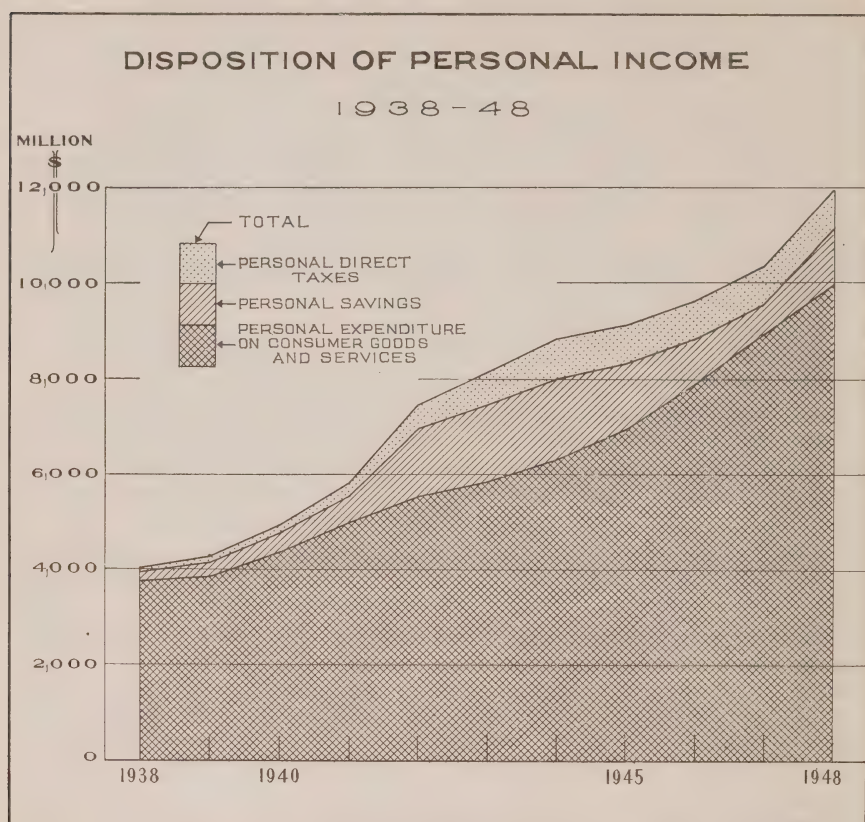
*Recent Developments.*—National income was 15 p.c. higher in 1948 than in 1947. Most of the increase was, undoubtedly, the result of higher prices since retail prices (as measured by the cost-of-living index) rose by 14 p.c. in the same period. Some changes in the proportion of different factor shares in the total national income are indicated. A greater share of the national income went to farmers, net income of agriculture increasing to 13.2 p.c. of the national income compared with 11.1 p.c. in 1947 and 10.7 p.c. in 1939. Other components, salaries and wages, investment income, and net income of non-agricultural unincorporated business were all slightly smaller in relation to the total, although larger in absolute terms. Corporation profits which are a large part of investment income did not share in the relative decline but were 16.7 p.c. of the total in both years.

### 1.—National Income and Gross National Product, 1939, 1942-48

(Millions of Dollars)

NOTE.—Figures for the years 1926-41 will be found at p. 1089 of the 1948-49 Year Book.

Item	1939	1942	1943	1944	1945	1946	1947	1948
Salaries, wages and supplementary labour income.....	2,583	4,251	4,746	4,908	4,915	5,322	6,212	7,113
Military pay and allowances.....	32	641	910	1,068	1,117	340	83	82
Investment income.....	783	1,737	1,778	1,774	1,905	1,978	2,307	2,473
Net income of agriculture and other unincorporated business—								
Net income of farm operators from farming operations.....	461	1,089	969	1,213	959	1,130	1,210	1,660
Net income of other unincorporated business.....	430	664	690	749	851	1,026	1,126	1,260
<b>Net National Income at Factor Cost.....</b>	<b>4,289</b>	<b>8,382</b>	<b>9,093</b>	<b>9,712</b>	<b>9,747</b>	<b>9,796</b>	<b>10,938</b>	<b>12,588</b>
Indirect taxes less subsidies.....	737	1,087	1,117	1,113	1,007	1,269	1,604	1,735
Depreciation allowances and similar business costs.....	582	883	912	863	785	846	1,009	1,085
Residual error of estimate.....	-10	+172	+176	+209	+220	+25	+40	+42
<b>Gross National Product at Market Prices.....</b>	<b>5,598</b>	<b>10,524</b>	<b>11,298</b>	<b>11,897</b>	<b>11,759</b>	<b>11,936</b>	<b>13,591</b>	<b>15,450</b>



Gross national expenditure indicates the manner in which the total production of goods and services is utilized. The shares of the production of goods and services absorbed by the main components: consumer expenditure, government expenditure, gross home investment and net foreign investment, were comparatively stable as between 1947 and 1948. Consumer expenditure and gross home investment show minor declines from 67.1 p.c. and 21.6 p.c. of gross national expenditure respectively in 1947 to 65.3 p.c. and 20.9 p.c. in 1948. The slight decline in gross home investment as a percentage of gross national expenditure between 1947 and 1948 was due entirely to a marked decline in the rate of inventory accumulation. Expenditure on housing and plant and equipment both showed substantial absolute and relative gains. Government expenditure on goods and services increased in 1948 to 26.2 p.c. of gross national expenditure compared with 26.1 p.c. in 1947. Net foreign investment increased from 0.1 p.c. in 1947 to 2.7 p.c. in 1948. Exports increased in absolute terms and absorbed the same proportion of gross national expenditure in 1948 as in 1947. Imports on the other hand, although approximately stable in absolute terms, declined relative to the total. This was largely the result of emergency restrictions on imports introduced in the fall of 1947 to correct the Canadian shortage of United States dollars.

**2.—Gross National Expenditure, 1939, 1942-48**

(Millions of Dollars)

NOTE.—Figures for the years 1926-41 will be found at p. 1091 of the 1948-49 Year Book.

Item	1939	1942	1943	1944	1945	1946	1947 <sup>c</sup>	1948 <sup>c</sup>
Personal expenditure on consumer goods and services.....	3,861	5,565	5,869	6,330	6,999	7,952	9,126	10,083
Government expenditure on goods and services.....	724	3,817	4,271	5,075	3,710	1,848	1,551	1,768
Gross home investment—								
Housing.....	145	128	131	157	210	338	492	650
Plant and equipment.....	409	803	697	599	672	1,024	1,565	1,926
Inventories.....	327	335	-40	-82	-300	467	879	646
Exports of goods and services.....	1,451	2,322	3,403	3,566	3,580	3,203	3,629	4,037
Deduct—imports of goods and services.....	-1,328	-2,275	-2,858	-3,539	-2,893	-2,871	-3,612	-3,618
Residual error of estimate.....	+9	-171	-175	-209	-219	-25	-39	-42
<b>Gross National Expenditure at Market Prices.....</b>	<b>5,598</b>	<b>10,524</b>	<b>11,298</b>	<b>11,897</b>	<b>11,759</b>	<b>11,936</b>	<b>13,591</b>	<b>15,450</b>

Personal income rose by \$1,538,000,000 between 1947 and 1948. The rise of \$450,000,000 in the net income of farmers from \$1,210,000,000 in 1947 to \$1,660,000,000 in 1948 was particularly striking. Government transfer payments declined slightly the drop in veterans' payments being partly offset by increased pensions, family allowances, hospital grants and unemployment benefits. The increase of \$957,000,000 in personal expenditure on consumer goods and services between 1947 and 1948 was considerably less than the increase in personal income. Direct taxes were a smaller percentage of personal income in 1948 than in 1947 but increased by \$22,000,000 in absolute terms. Personal saving which had been declining steadily in post-war years increased sharply from 4.1 p.c. of personal income in 1947 to 8.3 p.c. of personal income in 1948.

**3.—Personal Income, 1939, 1942-48**

(Millions of Dollars)

NOTE.—Figures for the years 1926-41 will be found at p. 1093 of the 1948-49 Year Book.

Item	1939	1942	1943	1944	1945	1946	1947	1948
Salaries, wages and supplementary labour income.....	2,583	4,251	4,746	4,908	4,915	5,322	6,212	7,113
Deduct—employer and employee contributions to social insurance and government pension funds...	-34	-110	-124	-132	-135	-149	-181	-220
Military pay and allowances.....	32	641	910	1,068	1,117	340	83	82
Net income of agriculture and other unincorporated business.....	891	1,753	1,659	1,962	1,810	2,156	2,336	2,920
Interest, dividends and net rental income of persons.....	564	703	745	795	836	880	1,032	1,127
Transfer payments (excl. interest)—								
From government.....	249	226	216	263	552	1,111	848	843
Charitable contributions of corporations.....	6	12	12	11	12	10	15	18
<b>Totals.....</b>	<b>4,291</b>	<b>7,476</b>	<b>8,164</b>	<b>8,875</b>	<b>9,107</b>	<b>9,670</b>	<b>10,345</b>	<b>11,883</b>



## 4.—Disposition of Personal Income, 1939, 1942-48

(Millions of Dollars)

NOTE.—Figures for the years 1926-41 will be found at p. 1094 of the 1948-49 Year Book.

Item	1939	1942	1943	1944	1945	1946	1947	1948
Personal Direct Taxes—								
Income taxes.....	61	433	631	772	733	711	694	717
Succession duties.....	28	37	38	40	47	54	61	57
Miscellaneous.....	21	24	28	25	25	32	36	39
Personal expenditure on consumer goods and services.....	3,861	5,565	5,869	6,330	6,999	7,952	9,126	10,083
Personal saving.....	320	1,417	1,598	1,708	1,303	921	428	987
<b>Totals.....</b>	<b>4,291</b>	<b>7,476</b>	<b>8,164</b>	<b>8,875</b>	<b>9,107</b>	<b>9,670</b>	<b>10,345</b>	<b>11,883</b>

The tables of government revenue and expenditure are designed to include only those transactions which have relevance for the national accounts, and consequently the surpluses or deficits shown here do not agree with those shown in the various public accounts. It has been necessary to adjust the conventional accounting statements of fiscal year revenue and expenditure to exclude purely bookkeeping transactions as well as the purchase and sale of existing capital assets. Extra-budgetary funds such as unemployment insurance, workmen's compensation and pension funds have been added, and surpluses or deficits of government enterprises are likewise included. In the federal accounts some of the more substantial adjustments are as follows: national defence recoverable expenditure is added, war refunds are allocated to prior years, corporate taxes are adjusted to an accrual basis, sales of war assets to business are eliminated, and the British Commonwealth Air Training Plan write-off is eliminated from expenditure. In addition, the federal figures have been adjusted to a calendar year basis by using the monthly figures published by the Comptroller of the Treasury. Government loans to foreign countries and accumulation of gold or foreign exchange are not included with government expenditure.

## 5.—Government Revenue, 1939, 1942-48

(Millions of Dollars)

Item	1939	1942	1943	1944	1945	1946	1947	1948
Direct Taxes—persons								
Income tax.....	61	433	631	772	733	711	694	717
Succession duties.....	28	37	38	40	47	54	61	57
Miscellaneous.....	21	24	28	25	25	32	36	39
Direct Taxes—corporations								
Income and excess profits tax....	112	629	642	603	603	670	724	743
Withholding taxes.....	11	29	27	27	29	29	35	41
Indirect taxes.....	720	1,180	1,328	1,380	1,269	1,505	1,781	1,808
Investment Income								
Interest.....	77	95	106	113	128	133	130	149
Trading profits.....	22	151	218	231	265	243	215	187
Employer and employee contributions to social insurance and government pension funds.....	34	110	124	132	135	149	181	220
Deficit (+) or surplus (–) on transactions relating to the national accounts.....	42	1,647	1,817	2,601	1,692	125	–816	–818
<b>Totals.....</b>	<b>1,128</b>	<b>4,335</b>	<b>4,959</b>	<b>5,924</b>	<b>4,926</b>	<b>3,651</b>	<b>3,041</b>	<b>3,143</b>



**6.—Government Expenditure, 1939, 1942-48**

(Millions of Dollars)

Item	1939	1942	1943	1944	1945	1946	1947	1948
Purchase of goods and services—								
Excluding Mutual Aid, etc.....	724	2,815	3,753	4,115	2,852	1,751	1,513	1,749
Mutual Aid, UNRRA and Military Relief.....	—	1,002	518	960	858	97	38	19
Transfer Payments—								
Interest.....	172	199	261	319	402	456	465	459
Other.....	249	226	216	263	552	1,111	843	843
Subsidies.....	-17	93	211	267	262	236	177	73
<b>Totals.....</b>	<b>1,128</b>	<b>4,335</b>	<b>4,959</b>	<b>5,924</b>	<b>4,926</b>	<b>3,651</b>	<b>3,041</b>	<b>3,143</b>

For purpose of analysis, expenditure by government may be divided into two main categories: expenditure for the purchase of goods and services; and transfer payments, such as family allowances, old age pensions, veterans benefits, and the greater part of interest on the public debt, none of which arises from the current production of goods and services. The first category represents the demands which governments place on the annual output of the nation. Transfer payments, on the other hand, may be considered essentially as transfer of income from one part of the community to another and simply add to the sums available for spending or saving by the recipient.

During 1948 government expenditure on goods and services increased to \$1,768,000,000 from the post-war low of \$1,551,000,000 in 1947. Transfer payments to persons declined by only 0.6 p.c.; subsidies fell off sharply by 58.8 p.c. following abandonment of subsidy programs associated with control of the domestic price level. Using definitions appropriate to the national accounts the surplus of revenue over expenditure was a record \$818,000,000 in 1948, most of this surplus being attributable to the Federal Government.

During 1948 gross home investment increased by \$286,000,000 or 9.7 p.c. Large increases of \$158,000,000 in housing and \$361,000,000 in plant and equipment were partially offset by a \$233,000,000 decline in the rate of inventory accumulation. Net foreign investment, the excess of exports over imports, rose sharply from \$17,000,000 in 1947 to \$419,000,000 in 1948. In both 1947 and 1948 the large government surpluses helped to bridge the gap between private saving and record levels of investment.

**7.—Source of Private Saving, 1939, 1942-48**

(Millions of Dollars)

NOTE.—Figures for the years 1938-41 will be found at p. 1094 of the 1948-49 Year Book.

Item	1939	1942	1943	1944	1945	1946	1947	1948
Personal saving.....	320	1,417	1,598	1,708	1,303	921	428	987
Business saving.....	219	380	422	315	436	477	639	671
Inventory revaluation adjustment.....	-56	-63	-133	-2	-2	-8	-18	-4
Depreciation allowance and similar business costs.....	582	883	912	863	785	846	1,009	1,085
Residual error of estimate.....	-10	+172	+176	+209	+220	+25	+40	+42
<b>Totals.....</b>	<b>1,055</b>	<b>2,789</b>	<b>2,975</b>	<b>3,093</b>	<b>2,742</b>	<b>2,261</b>	<b>2,098</b>	<b>2,781</b>

## 8.—Disposition of Private Saving, 1939, 1942-48

(Millions of Dollars)

NOTE.—Figures for the years 1938-41 will be found at p. 1095 of the 1948-49 Year Book.

Item	1939	1942	1943	1944	1945	1946	1947	1948
Gross Home Investment—								
Housing.....	145	128	131	157	210	338	492	650
Plant and equipment.....	409	803	697	599	672	1,024	1,565	1,926
Inventories.....	327	335	-40	-82	-300	467	879	646
Net foreign investment.....	123	47	545	27	687	332	17	419
Government deficit (+) or surplus (-).....	42	1,647	1,817	2,601	1,692	125	-816	-818
Residual error of estimate.....	+9	-171	-175	-209	-219	-25	-39	-42
<b>Totals.....</b>	<b>1,055</b>	<b>2,789</b>	<b>2,975</b>	<b>3,093</b>	<b>2,742</b>	<b>2,261</b>	<b>2,098</b>	<b>2,781</b>

## PART II.—RELATED ECONOMIC STATISTICS

## Section 1.—Survey of Production\*

This Section deals with gross and net values of commodity production. Net production, in general, represents an estimate of the amount contributed to the national economy by the leading industrial groups engaged in commodity production. It is made up of the total value less the cost of materials, fuel, purchased electricity and process supplies consumed in production.† For purposes of economic discussion, the net figure should be used in preference to the gross, in view of the large amount of duplication included in the latter.

**Current Trends.**—The value of commodity production in Canada in 1947 was the highest ever attained in the history of the country. The gross value at \$15,074,000,000 was 23.4 p.c. higher than in the preceding year, when it stood at \$12,213,000,000 and 184 p.c. higher than in 1938. The increase in the value of production was practically continuous from 1938 to the year under review, the recession in 1945 having been the only interruption.

Since for most purposes the net value of production is more significant than the gross, the subsequent analysis is based mainly on that phase of the subject. Net production was valued at a record \$7,765,000,000 in 1947 against \$6,458,000,000 in 1946. This important gain was due largely to the rapid advance in prices during the period, although physical output also increased, as evidenced by a rise of about 10 p.c. in the index of the physical volume of industrial production.

The post-war release of pent-up demand for consumer goods in Canada and abroad and record investment in housing, plant and equipment, together with marked improvement in the labour situation and the availability of raw materials, made 1947 a banner year in the history of the Canadian economy as measured by the value of commodities produced. It is estimated that a further expansion in production was achieved in 1948. The index of industrial production rose from 175.5 in 1947 to 181.5 in 1948, and the general index of wholesale prices advanced nearly 19 p.c. in the same comparison. In addition, the gross income of farm production increased from \$2,130,000,000 in 1947 to \$2,691,000,000 in 1948, indicating a substantial rise in the value of agricultural output.

\* Prepared in the Business Statistics Section, Research and Development Division, Dominion Bureau of Statistics.

† A description of the method used in computing gross and net production figures is given in the *Survey of Production*, issued by the Dominion Bureau of Statistics.

**Leading Branches of Production.**—With the exception of trapping, each of the nine industrial groups shown in Table 1 reached an all-time high in 1947. High building activity and record prices for construction materials resulted in a 47 p.c. increase in the net value of construction over 1946, the most outstanding increase of all the groups. Higher prices and greater physical output also caused forestry and mining to attain their highest positions in history in terms of net value. The former rose more than 34 p.c. over 1946 and the latter, after a four-year recession, nearly 31 p.c. Relatively minor increases were recorded for agriculture, fisheries, electric power and custom and repair. Trapping declined 46 p.c. to its lowest point since 1941. Total manufactures surpassed even the wartime peak in 1944, advancing nearly 24 p.c. over 1946 to a record \$4,292,000,000.

Table 1 classifies industry into primary and secondary production, but naturally many stages of manufacturing are closely connected with primary resources. Fish-curing and -packing plants, for instance, are operated in close relationship to the fishing fleets, sawmills with forest operations and smelters and refineries with metal mining. The gross and net values of production of such processing industries are given separately in Table 2, which indicates the degree of duplication between primary industries and manufactures eliminated in Table 1.

### 1.—Gross and Net Values of Production, by Industries, 1942-47

NOTE.—Net production represents total value under a particular heading, less the cost of materials, fuel, purchased electricity and supplies consumed in the production process.

Industry	1942	1943	1944	1945	1946	1947
GROSS VALUES						
	\$	\$	\$	\$	\$	\$
Agriculture.....	1,635,529,000	1,545,652,000	1,918,647,000	1,679,321,000	1,937,301,000	2,129,522,000
Forestry.....	763,988,245	810,154,089	887,973,532	964,237,446	1,228,994,287	1,628,909,054
Fisheries.....	103,118,177	118,610,634	123,705,565	166,144,381	177,024,678	174,279,465
Trapping.....	23,801,213	21,579,615	23,988,773	21,505,447	31,077,867	16,842,966
Mining.....	946,021,397	974,414,921	897,407,212	766,721,126	754,386,422	1,010,643,735
Electric power.....	203,835,365	204,801,508	215,246,391	215,105,473	226,096,273	239,116,247
Less duplication in forest production <sup>1</sup> ...	46,974,440	64,000,614	78,294,000	80,641,000	93,930,000	107,767,000
<b>Totals, Primary Production.....</b>	<b>3,629,318,957</b>	<b>3,611,212,153</b>	<b>3,988,674,473</b>	<b>3,732,393,873</b>	<b>4,260,950,527</b>	<b>5,091,556,467</b>
Construction.....	635,649,570	572,426,551	449,838,059	543,579,833	868,661,403	1,256,535,677
Custom and repair....	208,379,000	213,622,000	243,424,000	262,621,000	314,310,000	364,141,000
Manufactures.....	7,553,794,972	8,732,860,999	9,073,692,519	8,250,368,866	8,035,692,471	10,081,026,580
<b>Totals, Secondary Production.....</b>	<b>8,397,823,542</b>	<b>9,518,909,550</b>	<b>9,766,954,578</b>	<b>9,056,569,699</b>	<b>9,218,663,874</b>	<b>11,701,703,257</b>
Less duplication in manufactures <sup>2</sup> .....	1,071,237,766	1,148,896,816	1,160,974,424	1,115,088,513	1,266,379,183	1,719,695,805
<b>Grand Totals.....</b>	<b>10,955,904,733</b>	<b>11,981,224,887</b>	<b>12,504,654,627</b>	<b>11,673,875,059</b>	<b>12,213,235,218</b>	<b>15,073,563,919</b>

For footnotes, see end of table, p. 386.

## 1.—Gross and Net Values of Production, by Industries, 1942-47—concluded

Industry	1942	1943	1944	1945	1946	1947
NET VALUES						
	\$	\$	\$	\$	\$	\$
Agriculture.....	1,361,690,000	1,233,120,000	1,533,807,000	1,269,362,000	1,468,027,000	1,579,604,000
Forestry.....	429,079,260	462,815,227	507,357,605	550,970,574	711,026,833	953,918,800
Fisheries.....	64,821,702	74,655,678	76,889,487	103,106,209	107,908,162	110,088,471
Trapping.....	23,801,213	21,579,615	23,988,773	21,505,447	31,077,867	16,842,966
Mining.....	514,109,951	475,529,364	454,022,468	413,276,800	422,074,303	552,309,949
Electric power.....	200,345,240	200,833,297	209,757,908	210,006,712	220,511,067	233,860,860
Less duplication in forest production <sup>1</sup> ....	46,974,440	64,000,614	61,357,833	64,501,946	73,516,000	84,438,000
Totals, Primary Production.....	2,546,872,926	2,404,532,567	2,744,465,408	2,503,725,796	2,887,109,232	3,362,187,046
Construction.....	310,917,190	293,538,167	249,037,017	267,957,837	408,695,662	601,539,452
Custom and repair....	141,395,000	144,952,000	165,174,000	178,200,000	213,273,000	247,086,000
Manufactures.....	3,309,973,758	3,816,413,541	4,015,776,010	3,564,315,899	3,467,004,980	4,292,055,802
Totals, Secondary Production.....	3,762,285,948	4,254,903,708	4,429,987,027	4,010,473,736	4,088,973,642	5,140,681,254
Less duplication in manufactures <sup>2</sup> .....	486,201,970	410,701,516	437,045,069	428,243,781	518,517,965	737,453,025
Grand Totals.....	5,882,956,904	6,248,734,759	6,737,407,366	6,085,955,751	6,457,564,909	7,765,415,275

<sup>1</sup> Eliminates duplication between the agriculture and forestry totals. <sup>2</sup> Eliminates duplication under "Manufactures"; this item includes sawmills, pulp and paper mills, etc., which are also included under other headings above.

## 2.—Gross and Net Values of Production in the Processing Industries, 1946 and 1947

Industry	1946		1947		Change in Net Value in 1947 from 1946	Percentage Change in Net Value, 1947 from 1946	Percentage of Net Value to Total Net Production 1947
	Gross	Net	Gross	Net			
	\$	\$	\$	\$	\$	p c.	p c.
Fish-curing and packing.....	100,201,291	31,084,775	105,272,682	41,081,688	+9,996,913	+32.2	5.6
Sawmilling....	287,910,057	129,408,392	402,133,298	190,514,978	+61,106,586	+47.2	25.8
Non-ferrous metal smelting	304,718,524	69,565,922	453,033,942	115,798,652	+46,232,730	+66.5	15.7
Pulp and paper.	527,814,916	258,164,578	706,971,628	356,084,900	+97,920,322	+37.9	48.3
Cement.....	21,724,021	12,930,058	23,582,011	13,449,437	+519,379	+4.0	1.8
Clay products.	12,207,367	9,563,690	14,486,189	11,266,933	+1,703,243	+17.8	1.5
Lime.....	7,322,168	4,910,127	8,850,023	5,763,244	+853,117	+17.4	0.8
Salt.....	4,480,839	2,890,423	5,366,032	3,493,193	+602,770	+20.9	0.5
Totals.....	1,266,379,183	518,517,965	1,719,695,805	737,453,025	+218,935,060	+42.2	100.0

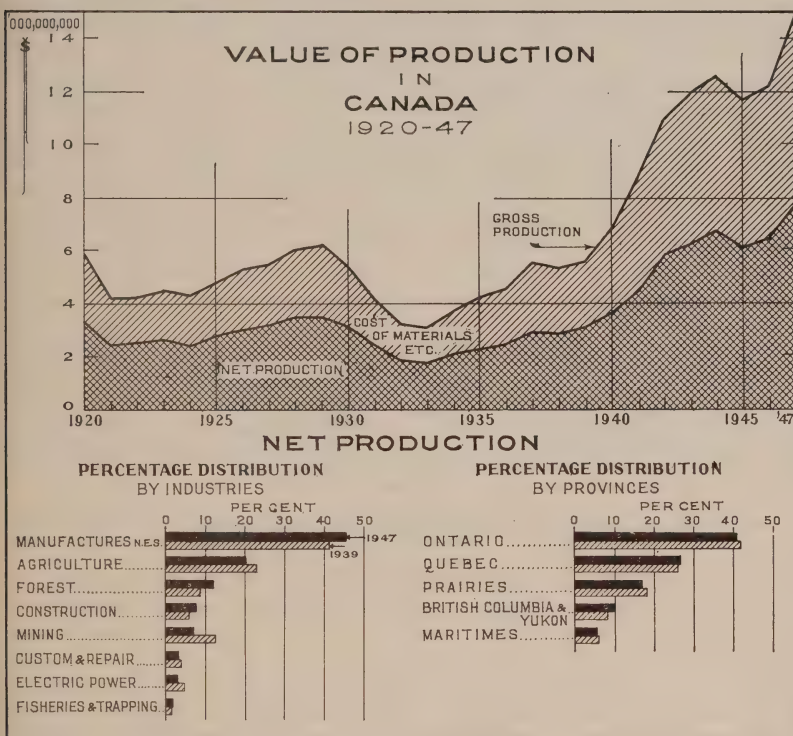
**Provincial Distribution of Production.**—Only two provinces failed to establish all-time highs in net value of production in 1947. Prince Edward Island receded slightly from its 1946 peak of \$22,144,000 and predominantly agricultural Saskatchewan, despite a rise of more than 17 p.c. over 1946, failed to better its record of \$528,817,000 established in 1944.

The increase in net production in Quebec over 1946 was nearly 17 p.c.; as the gain in the Canadian total was approximately 20 p.c., the relative importance of this Province was less in 1947 than in the preceding year. Ontario, with a gain of 24 p.c. in 1947 gained ground in this comparison. Despite advances in Nova Scotia and New Brunswick of 6 p.c. and 17 p.c., respectively, these two Maritime Provinces, together with Prince Edward Island, lost in relative importance.



The three Prairie Provinces also suffered in this connection. Manitoba and Alberta, although recording gains over 1946 to establish new maxima, failed to approach the advance in the Canadian total.

The only other province to gain in relative importance in 1947 besides Ontario was British Columbia. Production in this Province rose 32 p.c. over 1946 to establish a new record of \$769,392,000.



3.—Gross and Net Values of Production, by Provinces, 1946 and 1947

Province or Territory	1946				1947			
	Gross Value	Net Value			Gross Value	Net Value		
		Amount	P.C. of Total	Per Capita <sup>1</sup>		Amount	P.C. of Total	Per Capita <sup>1</sup>
	\$	\$		\$	\$	\$		\$
P.E.I.	38,351,051	22,144,302	0.34	236	40,275,589	21,840,154	0.28	232
N.S.	350,404,499	197,329,638	3.06	322	381,199,094	208,889,897	2.69	336
N.B.	300,733,163	162,700,528	2.52	339	365,009,501	191,525,027	2.47	390
Que.	3,441,764,182	1,775,525,027	27.50	489	4,143,940,492	2,069,847,205	26.65	558
Ont.	5,063,715,869	2,557,193,323	39.60	624	6,474,752,242	3,177,503,242	40.92	759
Man.	625,319,340	329,300,254	5.10	453	694,565,858	368,006,138	4.74	495
Sask.	626,522,150	388,858,319	6.02	467	734,931,886	456,414,057	5.88	542
Alta.	708,612,493	434,902,340	6.73	542	819,106,465	495,086,290	6.37	602
B.C.	1,050,437,480	583,012,640	9.03	581	1,410,697,659	769,392,150	9.91	737
Yukon and N.W.T.	7,374,991	6,598,538	0.10	275	9,085,133	6,911,115	0.09	288
<b>Canada</b>	<b>12,213,235,218</b>	<b>6,457,564,909</b>	<b>100.00</b>	<b>525</b>	<b>15,073,563,919</b>	<b>7,765,415,275</b>	<b>100.00</b>	<b>617</b>

<sup>1</sup> Based on estimated population figures as given at p. 155.

**Per Capita Production.**—The total of net production per capita in 1947 recorded a new maximum of \$617 which surpassed the previous record of \$563 in 1944 by nearly 10 p.c.

Due to its pre-eminent position in industrial development, Ontario at \$759 was the leader on a per capita basis. The same outstanding position was characteristic of 1938 and 1944. The per capita return of British Columbia at \$737 was in second place in 1947. The same order existed in the pre-war year but Saskatchewan displaced the Pacific Province in 1944. With a per capita production of \$602, Alberta held third place in 1947, the same as in 1938; it had dropped to fifth place in 1944. Quebec maintained the fourth position in each of the three years. The per capita production of Saskatchewan varied greatly from time to time, depending on the farm output; the standing was fifth in 1947, second in 1944 and eighth in 1938. The production per person in Manitoba at \$495 was sixth in 1947. The Province moved down one place from 1938 but held the same order as in 1944.

New Brunswick, Nova Scotia and Prince Edward Island occupied seventh, eighth and ninth places, respectively, in 1947. The latter showed no change since the pre-war year. Nova Scotia receded from sixth place in 1938 to seventh in 1944 and further to eighth in 1946. New Brunswick advanced from eighth place in 1944 to seventh in 1946.

The highest percentage increase in per capita production in 1947 over 1946 was recorded by British Columbia with a gain of nearly 27 p.c. Ontario was next with an increase of almost 22 p.c., followed by Saskatchewan and New Brunswick with advances of 16 p.c. and 15 p.c., respectively. Prince Edward Island was the only province recording a decline in this comparison. Only the latter and Saskatchewan failed to establish new maxima in per capita production in 1947.

#### 4.—Net Values of Production, Classified for Each Province, by Industries, 1946 and 1947

Year and Industry	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
1946	\$	\$	\$	\$	\$
Agriculture.....	13,320,000	32,071,000	35,680,000	234,702,000	405,074,000
Forestry.....	1,166,871	24,154,765	54,019,923	287,046,710	167,772,531
Fisheries.....	4,155,906	31,489,194	13,988,338	7,219,982	6,296,658
Trapping.....	18,537	733,054	239,943	5,308,477	7,792,630
Mining.....	—	26,425,106	4,236,861	97,020,447	147,605,421
Electric power.....	344,048	7,077,258	4,866,590	84,822,248	73,546,935
Construction.....	966,602	21,754,231	14,409,598	101,328,551	163,265,558
Custom and repair.....	938,000	7,797,000	4,714,000	65,085,000	81,177,000
Manufactures.....	3,469,435	71,738,873	67,733,377	1,125,991,848	1,659,284,622
Less duplication <sup>1</sup> .....	2,235,097	25,910,843	37,238,102	233,000,236	154,622,032
<b>Totals, 1946.....</b>	<b>22,144,302</b>	<b>197,329,638</b>	<b>162,700,528</b>	<b>1,775,525,027</b>	<b>2,557,193,323</b>
	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and N.W.T.
	\$	\$	\$	\$	\$
Agriculture.....	139,846,000	292,232,000	248,804,000	66,298,000	2
Forestry.....	10,296,791	6,757,053	11,211,114	148,590,669	10,406
Fisheries.....	4,871,037	1,148,886	1,339,083	36,835,800	563,278
Trapping.....	5,011,580	2,677,078	2,974,120	2,894,470	3,427,678
Mining.....	12,480,188	22,743,522	50,981,943	58,629,880	1,950,935
Electric power.....	12,001,213	6,337,824	9,010,692	22,256,339	247,920
Construction.....	19,936,046	13,855,512	25,170,956	48,008,608	2
Custom and repair.....	12,881,000	9,925,000	11,591,000	19,165,000	2
Manufactures.....	122,780,805	38,459,630	83,735,011	293,352,652	408,727
Less duplication <sup>1</sup> .....	10,804,706	5,278,186	9,915,679	115,018,778	10,406
<b>Totals, 1946.....</b>	<b>329,300,254</b>	<b>388,858,319</b>	<b>434,902,340</b>	<b>583,012,640</b>	<b>6,598,538</b>

4.—Net Values of Production, Classified for Each Province, by Industries,  
1946 and 1947—concluded

Year and Industry	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
1947	\$	\$	\$	\$	\$
Agriculture.....	13,231,000	28,369,000	36,195,000	226,174,000	423,196,000
Forestry.....	1,232,466	30,302,069	67,704,969	356,247,175	224,162,079
Fisheries.....	2,609,948	24,230,084	13,708,406	4,789,794	5,403,662
Trapping.....	9,115	303,434	259,972	2,737,327	4,601,807
Mining.....	—	25,851,459	5,067,591	122,998,963	194,853,504
Electric power.....	394,495	7,572,785	5,078,474	93,895,252	79,438,924
Construction.....	1,516,259	28,436,771	20,513,711	156,897,939	244,552,609
Custom and Repair.....	1,087,000	9,033,000	5,461,000	75,404,000	94,047,000
Manufactures.....	3,849,353	84,935,517	83,487,984	1,324,397,690	2,136,014,184
Less duplication <sup>1</sup> .....	2,089,482	50,144,222	45,952,080	293,694,935	228,766,527
<b>Totals, 1947.....</b>	<b>21,840,154</b>	<b>208,889,897</b>	<b>191,525,027</b>	<b>2,069,847,205</b>	<b>3,177,503,242</b>
	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and N.W.T.
	\$	\$	\$	\$	\$
Agriculture.....	152,613,000	340,746,000	287,539,000	71,541,000	<sup>2</sup>
Forestry.....	12,364,211	7,339,092	12,283,193	242,266,466	17,080
Fisheries.....	5,329,448	1,170,930	856,609	51,451,168	538,422
Trapping.....	2,295,658	1,449,221	1,537,973	1,616,529	2,031,930
Mining.....	14,630,955	29,577,508	58,099,365	97,781,055	3,449,549
Electric power.....	12,649,996	8,597,876	9,693,602	16,173,272	366,184
Construction.....	27,857,666	19,742,010	33,241,838	68,780,649	<sup>2</sup>
Custom and repair.....	14,923,000	11,499,000	13,429,000	22,203,000	<sup>2</sup>
Manufactures.....	139,373,521	41,480,520	89,289,825	388,702,178	525,030
Less duplication <sup>1</sup> .....	14,031,317	5,188,100	10,884,115	191,123,167	17,080
<b>Totals, 1947.....</b>	<b>368,006,138</b>	<b>456,414,057</b>	<b>495,086,290</b>	<b>769,392,150</b>	<b>6,911,115</b>

<sup>1</sup> Duplication between agriculture and forestry, as well as duplication under manufactures (see pp. 385-386).

<sup>2</sup> None reported.

**Leading Branches of Production in Each Province.—Maritime Provinces.—**

It is readily apparent that farming is the predominant source of income in Prince Edward Island, accounting for nearly 61 p.c. of the net value of production for that Province in 1947. The increases in value of construction and manufactures over 1946 were not large enough to offset the relatively sharp drop in fisheries which fell to \$2,610,000 from \$4,156,000 resulting in a decline in the total net value. Despite decreases in agriculture, fisheries, trapping and mining, the recorded gains in forestry, construction and manufactures advanced the total value of production in Nova Scotia to a new high in 1947. Similarly, sharp advances in forestry, construction and manufactures produced a new maximum net value in New Brunswick. As a consequence, these three industries advanced in relative importance over 1946 in the three Maritime Provinces.

*Quebec.*—The production of manufactures, excluding the duplication of processing industries, amounted to almost 52 p.c. of the provincial total in 1947; agriculture produced 11 p.c. indicating the marked disparity between the two industries. Forestry is now second in relative importance accounting for more than 17 p.c. of the total. Agriculture, fisheries and trapping recorded declines in 1947 from the preceding year but these were more than offset by important gains in the other industries.

*Ontario.*—The outstanding position of this Province in the field of manufacturing is readily evident. The share of manufactures, excluding processing industries, was almost 61 p.c. of the total in 1947. All industries recorded advances over 1946 except



fisheries and trapping which are also the least in relative importance. Construction gained by nearly 50 p.c., followed by forestry and mining which showed increases of 34 p.c. and 32 p.c., respectively, over 1946. Total manufactures rose nearly 29 p.c.

*Prairie Provinces.*—All industries, except trapping in Manitoba and Saskatchewan and fisheries and trapping in Alberta, showed increases over 1946 in the three Prairie Provinces. The relative importance of agriculture in Manitoba, Saskatchewan and Alberta was 42 p.c., 75 p.c. and 58 p.c., respectively. The dominant position of this industry in Saskatchewan accounts for the marked fluctuations in output of that Province. In all three provinces, manufactures was second in importance, the total for Manitoba having been the highest. As a result of important discoveries of oil in Alberta, the mining industry of that Province will assume greater relative importance in the future.

*British Columbia.*—Trapping and electric power were the only industries that registered declines in 1947 from 1946. These were overshadowed by sharp increases in other industries which contributed to the largest gain over 1946 for the Province as compared to the rest of Canada. Mining and forestry led in this connection with advances of 67 p.c. and 63 p.c., respectively, in 1947. Construction rose more than 43 p.c. while fisheries and manufactures followed with increases of about 40 p.c. and 33 p.c. Manufacturing, forestry and mining, in that order, are the leading branches of industry.

*Yukon and Northwest Territories.*—Mining and trapping accounted for nearly 80 p.c. of the total net value of production in Yukon and the Northwest Territories in 1947. Trapping, as in eight of the nine provinces, fell sharply, while mining registered a gain of 77 p.c. over 1946 which is mainly responsible for the increase of nearly 5 p.c. in the total production.

## Section 2.—Canada's International Investment Position\*

A large balance of Canadian indebtedness to other countries has always been characteristic of Canada's international investment position. Much of the development of Canada has been financed by investments of capital from other countries, particularly in earlier decades. This balance of indebtedness has been reduced from the levels immediately before the recent War which in turn were lower than the earlier peak period around 1930. Net indebtedness to other countries in 1947 was about \$3,900,000,000 compared with more than \$6,000,000,000 in 1930.

*British and Foreign Investments in Canada.*—The relative importance of British and United States capital invested in Canada has greatly changed in recent decades. British capital constituted the largest part of the external capital invested in Canada before the First World War. United States investments underwent a rapid development during and after that War. Their expansion throughout the decade of the 1920's was rapid. By 1926, the first year for which official estimates are available, United States investments in Canada had a value of \$3,196,000,000 compared with British investments of \$2,636,000,000. But during the 1930's some reductions occurred in the amount of external capital invested in Canada.

A further growth in United States investments in Canada took place during the Second World War. By the end of the War these investments had reached a new peak, while British investments in Canada were sharply reduced by repatriations

\* Prepared in the Balance of Payments Section, International Trade Division, Dominion Bureau of Statistics. A more extended review of Canada's international investment position appears in the "Canadian Balance of International Payments, 1926-1948" and details on direct investments in "United States Direct Investments in Canada," both reports published by the Dominion Bureau of Statistics, 1949.



of securities. The relative importance in this more recent period of the United States capital inflow in relation to domestic capital formation was less than in earlier periods of capital inflow. Much the larger portion of Canadian developments and activities during the recent War were financed from Canadian sources. As a result of the divergent trends in British and United States investments, total non-resident investments in Canada increased only moderately between 1939 and 1945. In 1946 a further increase to a total of \$7,178,000,000 occurred, chiefly because of the continued expansion of United States investments in Canada. In 1947 there was a slight change in the total to \$7,181,000,000 because redemptions mainly offset new direct investments and reinvestments of earnings. By that date United States investments had reached a new peak of \$5,207,000,000 while British investments amounted to \$1,631,000,000.

The relative position of investments of external capital in relation to total investments of capital in Canada has changed materially in recent years. Non-resident investment now constitutes a smaller part of total investments in Canada than was the case before the recent War. It is difficult to express this relationship in terms of any simple ratio, however, because of the variety of types of investment which must be compared. Important changes have also taken place in the relative position of different types of investment.

Non-resident holdings of Canadian bonds constitute a much smaller proportion of the outstanding funded debt of Canadian governments and corporations than was the case before the recent War. The external holdings of Canadian bonds represented only about 13 p.c. of the total Canadian funded debt at the end of 1947 compared with about one-third of the approximate \$10,000,000,000 of bonds outstanding in 1939. The outstanding changes bringing about this transition have been the great rise during the recent War in the funded debt of the Federal Government, which was largely financed in Canada, and some reduction in the total of Canadian bonds held outside Canada which, in 1939, was \$3,508,000,000 compared with about \$2,853,000,000 in 1947. The reduction in the amount held outside Canada is due to wartime repatriations of Canadian bonds from the United Kingdom. Holdings in the United States and other countries have increased moderately in total since 1939. Non-resident holdings of Government issues, exclusive of railway bonds, were 17 p.c. of the total outstanding in 1939 and in 1947 were about 8 p.c. This change has also been partly due to a reduction in the amount held in the United Kingdom, as well as to the rise in total of internal issues.

Non-resident ownership of Canadian industry, mines, railways, and public utilities is estimated in 1946 to have been about 35 p.c. of total capital invested, a percentage not much different from the corresponding ratio at the beginning of the War.

The ratio of non-resident ownership in Canadian manufacturing companies was somewhat greater than in the case of the broader group of investments referred to, being estimated at about 44 p.c. in 1946. The percentage of different groups of Canadian industry owned abroad varied considerably. This ratio was greatest in the non-ferrous metal industry, being 72 p.c. compared with 25 p.c. in the textile industry. In other groups of industry non-resident ownership was also high reaching 58 p.c. in the chemical industry in 1946. In still other groups the ratio was between one-third and one-half, including vegetable products, animal products, wood and paper products, iron and its products and non-metallic minerals. Furthermore, in some subdivisions of these industries non-resident ownership and control were predominant even though only the minor parts of the groups, when taken as a whole,

were owned abroad. Other important industrial subdivisions are mainly Canadian owned and controlled, e.g., the primary iron and steel and cotton textile industries.

Non-resident ownership of railways and other utilities is large, being 43 p.c. in 1946. The mining and smelting field has also been developed to an important extent by external capital, the ratio of ownership being 36 p.c. Some major units in this field are also non-resident controlled. In financial institutions non-resident ownership is substantial but non-resident control is largely limited to branches of foreign insurance companies, as Canadian banks, trust companies, and most Canadian insurance companies are mainly Canadian controlled.

Direct investments by United States concerns in Canada constitute a particularly important part of the total United States investments of \$5,207,000,000. These investments in branches, subsidiaries and other companies in Canada controlled in the United States had a value of about \$2,544,000,000 in 1947. Being subject to varying degrees of control and active management by the United States owners these direct investments in more than 2,000 concerns constitute a special group of businesses in Canada which have played a significant part in the industrial development of the country.

The other major group of United States investments in Canada is largely made up of portfolios of minority holdings of public issues of the bonds and stocks of Canadian governments and corporations. Holdings of high-grade Canadian bonds by insurance companies and other institutional investors in the United States constitute an important part of the portfolio investments.

Portfolio investments have been the most typical form of British investments in Canada. Most of the repatriations of recent years occurred in this group, the direct investments remaining relatively unchanged. While the latter are now more important proportionately than formerly they continue to be only a minor part of the total, being valued at \$357,000,000 in 1947 or about 22 p.c. of the total British investments of \$1,631,000,000.

**5.—Estimated British and Foreign Capital Invested in Canada, by Types of Investment, as at Dec. 31, 1930, 1933, 1939 and 1945-47**

Type of Investment	1930	1933	1939	1945 <sup>r</sup>	1946 <sup>r</sup>	1947 <sup>p</sup>
	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000
Government Securities—						
Federal.....	682.0	751.9	823.0	726.0	750.0	713.0
Provincial.....	592.3	571.7	536.0	624.0	594.0	551.0
Municipal.....	431.5	394.4	344.0	312.0	267.0	264.0
Totals, Government Securities.....	1,705.8	1,718.0	1,703.0	1,662.0	1,611.0	1,528.0
Public Utilities—						
Railways.....	2,244.3	2,244.7	1,870.6	1,599.0	1,583.0	1,586.0
Other.....	633.4	625.4	549.4	494.0	557.0	473.0
Totals, Public Utilities.....	2,877.7	2,870.1	2,420.0	2,093.0	2,140.0	2,059.0
Manufacturing.....	1,573.0	1,421.6	1,445.2	1,829.0	1,895.0	2,034.0
Mining and smelting.....	334.1	338.5	329.1	403.0	386.0	395.0
Merchandising.....	202.9	191.5	189.3	226.0	238.0	251.0
Financial institutions.....	542.9	479.6	472.7	525.0	557.0	553.0
Other enterprises.....	82.4	75.2	69.0	70.0	69.0	71.0
Miscellaneous assets.....	295.0	270.0	285.0	284.0	282.0	290.0
Totals, Investment.....	<b>7,613.8</b>	<b>7,364.5</b>	<b>6,913.3</b>	<b>7,092.0</b>	<b>7,178.0</b>	<b>7,181.0</b>
British <sup>1</sup> .....	2,766.3	2,682.8	2,475.9	1,750.0	1,668.0	1,631.0
United States <sup>2</sup> .....	4,659.5	4,491.7	4,151.4	4,990.0	5,157.0	5,207.0
Other countries.....	188.0	190.0	286.0	352.0	353.0	343.0

<sup>1</sup> Includes some investments held in United Kingdom for residents of other countries.  
some investments held in the United States for residents of other countries.

<sup>2</sup> Includes

**6.—Estimated British and Foreign Capital Invested in Canada, by Types of Investment, Classified by Estimated Distribution of Ownership, as at Dec. 31, 1947<sup>1</sup>**

NOTE.—Common and preference stocks are shown at book values as shown in the balance sheets of the issuing companies, bonds and debentures are valued at par, liabilities in foreign currencies being converted into Canadian dollars at the par of exchange.

Type of Investment	Estimated Distribution of Ownership			Total Investments Owned Outside Canada
	British <sup>2</sup>	United States <sup>2</sup>	Other Countries	
	\$'000,000	\$'000,000	\$'000,000	\$'000,000
Government Securities—				
Federal.....	—	665	48	713
Provincial.....	35	515	1	551
Municipal.....	55	207	2	264
Totals, Government Securities.....	90	1,387	51	1,528
Public Utilities—				
Railways.....	792	724	70	1,586
Other.....	72	372	29	473
Totals, Public Utilities.....	864	1,096	99	2,059
Manufacturing.....	307	1,681	46	2,034
Mining and Smelting.....	52	323	20	395
Merchandising.....	57	188	6	251
Financial institutions.....	186	312	55	553
Other enterprises.....	5	65	1	71
Miscellaneous assets.....	70	155	65	290
<b>Totals, Investment.....</b>	<b>1,631</b>	<b>5,207</b>	<b>343</b>	<b>7,181</b>

<sup>1</sup> Subject to revision.

<sup>2</sup> Includes some investments held in the United Kingdom and the United States for residents of other countries.

**Canadian Assets Abroad.**—Canada's external assets have changed greatly in size and composition in recent years. The total value, including holdings of gold and liquid reserves in foreign currencies, has risen from \$1,876,000,000 in 1939 to \$3,728,000,000 at the end of 1947. The principal factor in this increase has been the extension by the Federal Government of loans and export credits to the United Kingdom and other countries. At the end of 1948, the total of Canadian Government credits outstanding was \$1,878,000,000. Included in this total are about \$304,000,000 outstanding on the 1942 loan to the United Kingdom, \$1,015,000,000 drawn on the 1946 loan to the United Kingdom, \$528,000,000 of post-war export credits and advances, and \$31,000,000 of other credits outstanding. In addition, at the end of 1948, official liquid reserves aggregated about \$998,000,000, including gold and official United States dollar balances. While these reserves, at that date, were still higher than at the end of 1939 they were considerably less than they were in 1945 and 1946. In addition, Canada had subscribed in 1946 and 1947 to the capital of the International Bank and the International Monetary Fund. By the end of 1947 subscriptions made by Canada to these institutions amounted to \$65,000,000 and \$300,000,000, respectively. A small part of the subscription to the Bank was in the form of convertible exchange and \$75,000,000 of the subscription to the Fund was in the form of gold. The remainder of both subscriptions was made in the form of demand notes of the Federal Government or in Canadian funds.

Besides the officially owned assets referred to above there were the privately owned investments in the form of foreign securities and property owned by Canadian companies and individuals. In 1939 these privately owned assets constituted



most of the total value of Canadian assets abroad, whereas, since the end of the recent War they have amounted to only a minor part of the total chiefly because of the sharp rise in officially owned assets. Total privately owned portfolio investments abroad have declined in value since 1939 because of the liquidations of Canadian holdings of United States securities. Portfolio holdings of foreign securities owned in Canada have been reduced from \$719,000,000 at the end of 1939 to \$579,000,000 at the end of 1947. This decline is less than the total sales of these securities by private investors during the period, as there was a considerable increase in the book value of holdings of United States stocks. Appreciable gains have occurred in the value of Canadian direct investments in businesses outside Canada which had a value of \$822,000,000 at the end of 1947 compared with \$671,000,000 at the end of 1939.

### 7.—Canadian Assets Abroad, 1930, 1939 and 1945-47

NOTE.—Excluding investments of insurance companies.

Assets	1930	1939	1945	1946	1947
	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000
Direct investments in businesses outside Canada...	443	671	720	772	822
Portfolio holdings of foreign securities.....	842	719	621	551	579
Government credits.....	31	31	707	1,362	1,816
Net external assets of Canadian banks.....	180				
Official liquid reserves <sup>1</sup> .....	..	455 <sup>c</sup>	1,667	1,251	511
<b>Totals, Canadian Assets Abroad.....</b>	<b>1,496</b>	<b>1,876<sup>c</sup></b>	<b>3,715</b>	<b>3,936</b>	<b>3,728</b>

<sup>1</sup> Includes holdings of gold which, at the end of 1946, had a Canadian dollar value of \$536,000,000 and in 1947, \$287,000,000.

### 8.—Estimated Canadian Investments Abroad, as at Dec. 31, 1947

NOTE.—Excluding investments of insurance companies, banks, government credits and liquid reserves. Holdings of stocks are at book values as shown in the books of issuing companies; holdings of bonds are shown at par values. Foreign currencies were converted into Canadian dollars at current market rates.

Location of Investment	Direct Investments	Portfolio Investments			Total Investments
		Stocks	Bonds	Total	
	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000
United States.....	531	283	83	366	897
United Kingdom .....	64	26	26	52	116
Other Commonwealth countries.....	85	7	11	18	103
Other foreign countries.....	142	110	33	143	285
<b>Totals.....</b>	<b>822</b>	<b>426</b>	<b>153</b>	<b>579</b>	<b>1,401</b>

The privately owned Canadian investments abroad are chiefly in the United States, the total value of investments in that country at the end of 1947 being \$897,000,000. At the same time investments in other foreign countries, chiefly in Latin America, were \$285,000,000, while investments in the United Kingdom were \$116,000,000, and in other Commonwealth countries \$103,000,000. These figures of investments exclude the investments abroad of Canadian insurance companies and banks, as well as the official assets referred to above, and certain small amounts of miscellaneous investments that are difficult to evaluate.



### Section 3.—Corporation Profits and Income to Shareholders\*

Estimates of corporation profits cover all corporations included in the statistics of national income. Figures for 1944-47 are based on the reports "Taxation Statistics" published by the Taxation Division, Department of National Revenue, that cover practically all taxable corporations. These data required only minor changes to make them conform with the definitions used for national income estimates. For the years prior to 1944, the estimates of corporate profits are based on data on tax collections and tax rates supplied by the Department of National Revenue.

Because of the importance of the rate of taxation in determining the income available for dividend and surplus, a brief description of the changes during the years 1938-49 is given here. The corporation income tax which was 15 p.c. in 1938 and 1939 was raised to 18 p.c. in 1940 and remained unchanged until Jan. 1, 1947, when it was increased to 30 p.c. Effective Jan. 1, 1949, the rate for the first \$10,000 of profits is 10 p.c. and for all profits in excess of \$10,000 it is 33 p.c. From Jan. 1, 1940, to Dec. 31, 1947, corporations were also subject to a tax on excess profits, details of which are as follows:—†

<i>Calendar Year</i>	<i>Excess Profits Tax on Corporations</i>
1940.....	12 p.c. of total profits or 75 p.c. of excess profits, whichever is greater.
1941.....	22 p.c. of total profits or 75 p.c. of excess profits, whichever is greater.
1942.....	First six months—same tax rate as 1941.
1942.....	Second six months—12 p.c. of total profits <i>plus</i> either 10 p.c. of total profits or 100 p.c. of excess profits, whichever is greater.
1943.....	12 p.c. of total profits <i>plus</i> either 10 p.c. of total profits or 100 p.c. of excess profits, whichever is greater.
1944.....	Unchanged from 1943.
1945.....	Unchanged from 1943.
1946.....	22 p.c. of total profits <i>plus</i> 20 p.c. of excess profits; beginning this year "excess profits" are defined as profits in excess of 116½ p.c. of standard profits.
1947.....	15 p.c. of excess profits.
1948.....	No tax payable.

Corporation profits, before taxes and dividends, reached a wartime peak in 1942, declined in 1943 and 1944, and then rose to all-time highs of \$1,828,000,000 in 1947 and \$2,103,000,000 in 1948. From 1939 to 1948 the increase was 240 p.c. Because of the sharp increase in the rate of taxation after 1940, however, income after taxes showed a more moderate increase of 169 p.c. between 1939 and 1948. Taxes rose sharply from 18 p.c. of profits in 1939 to 40 p.c. in 1940, and remained between 40 p.c. and 50 p.c. of profits until 1948, when the percentage dropped to 35. These figures of taxes levied do not include the refundable portion of the excess profits tax.

Dividends declared to stockholders remained fairly constant from 1939 to 1946, but increased fairly sharply in 1947 and 1948 to reach a level of \$533,000,000 in the latter year as compared with the 1939 figure of \$287,000,000. It should be

\* Prepared in the National Income Section, Research and Development Division, Dominion Bureau of Statistics.

† Refundable Portion: From July 1, 1942, to Dec. 31, 1945, those companies taxable at the 100 p.c. rate on excess profits were entitled to a refund of a portion of the taxes paid. The refundable portion was defined as 20 p.c. of all profits in excess of 116½ p.c. of standard profits.

noted that the figure for dividends paid out does not include dividends paid to Canadian corporations since intercorporate dividends cancel out for the corporate sector as a whole.

Undistributed profits, that is, profits after taxes and dividends, reached a peak of \$827,000,000 in 1948, as compared with \$219,000,000 in 1939. This, together with \$544,000,000 in depreciation charges gives a total of \$1,371,000,000 available for replacement and expansion of plant and equipment, and for building up inventories. Investment figures are not available for corporations, but data on Canadian gross home investment indicate that capital investment reached record highs in 1947 and 1948 with a large part of this expansion being financed by corporation earnings.

### 9.—Profits, Taxes and Dividends of Canadian Corporations, 1939-48

(Millions of Dollars)

NOTE.—Corporate profits before taxes include corporate taxable income, depletion charges and charitable donations, and are adjusted for corporate losses, renegotiation of war contracts, and conversion to a calendar year basis.

Item	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948 <sup>1</sup>
Net profits of corporations <sup>2</sup> .....	618	814	1,124	1,317	1,302	1,221	1,226	1,450	1,828	2,103
Income and excess profits taxes (excluding refundable portion of the excess profits tax) .....	112	324	515	629	642	603	603	670	724	743
Net profits after taxes .....	506	490	609	688	660	618	623	780	1,104	1,360
Cash dividends paid abroad and to persons in Canada, and charitable donations .....	287	318	305	311	295	284	251	340	502	533
Undistributed profits (including refundable portion of the excess profits tax) .....	219	172	304	377	365	334	372	440	602	827

<sup>1</sup> Subject to revision.

<sup>2</sup> National income estimate. See Table 10 for adjustment for taxable profits.

**Analysis by Industries.**—Most industries showed little change in net profits from 1944 to 1945 but there was a 15 p.c. increase in total profits before taxes from 1945 to 1946, and a 27 p.c. increase from 1946 to 1947. In both 1946 and 1947 the pulp and paper industry (including printing and publishing) showed the largest absolute increase in profits. Other industrial groups whose profits increased considerably in 1947 over their 1946 levels were: forestry, other metal mining, vegetable food products, wood and wood products, primary iron and steel, machinery, automobiles, and wholesale and retail trade. The gold-mining industry, the profits of which have been declining steadily since 1944, was one of the few groups to show a decrease in profits.

Net income after taxes shows much the same pattern as net income before taxes but, because of the drop in the 1947 tax rate, 1947 net income after taxes was 53 p.c. above that for 1946, as compared with a 27 p.c. increase before taxes.

## 10.—Corporation Profits, Before and After Taxes, by Industries, 1944-47

NOTE.—Figures are for the company fiscal years ended in the calendar years 1944 to 1947. The source of information is "Taxation Statistics" published annually by the Taxation Division, Department of National Revenue, Ottawa.

Industry	Net Income Before Taxes				Net Income After Taxes <sup>1</sup>			
	1944	1945	1946	1947	1944	1945	1946	1947
	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000
Agriculture.....	2.0	1.9	2.2	2.2	0.7	0.7	0.8	1.1
Fishing.....	0.2	0.3	1.3	0.6	0.1	0.1	0.8	0.3
Forestry.....	0.7	-0.2	3.1	9.4	--	-1.1	1.2	5.6
Gold mining.....	27.8	24.1	16.2	11.4	15.9	13.6	8.2	6.0
Other metal mining.....	41.1	45.9	54.0	84.6	23.9	25.3	28.7	54.2
Other mining.....	0.3	6.6	9.4	14.2	-3.3	3.0	4.7	9.2
Animal food products.....	16.6	16.8	14.5	14.8	8.0	8.4	8.2	9.3
Vegetable food products.....	53.0	51.6	46.9	60.9	25.8	25.4	24.9	38.3
Alcoholic beverages.....	40.3	53.5	69.5	61.0	17.5	21.9	32.2	36.2
Tobacco.....	11.4	12.3	11.6	9.8	6.2	6.4	6.6	6.6
Textiles and textile products.....	54.5	57.2	67.8	80.3	25.4	27.1	35.7	49.1
Wood and wood products.....	26.4	26.4	37.8	73.5	11.9	11.5	19.1	43.8
Pulp and paper.....	72.4	74.0	138.3	199.4	35.7	36.8	71.4	121.5
Chemicals, paints and drugs.....	50.5	50.5	57.1	60.9	24.0	24.4	29.9	38.4
Petroleum products.....	41.7	38.1	41.5	46.4	24.8	24.0	26.5	33.3
Rubber.....	7.6	11.8	12.4	17.8	3.5	5.7	6.5	10.9
Leather.....	9.8	9.3	12.8	14.6	4.6	4.5	6.5	8.8
Non-metallic mineral products.....	15.4	16.2	21.5	28.1	6.8	7.7	10.9	17.2
Iron and steel products.....	39.9	32.8	37.3	44.4	17.2	15.1	19.7	29.4
Primary iron and steel.....	24.4	22.2	18.0	30.3	12.1	11.0	10.0	19.6
Non-ferrous smelting and refining, and products.....	30.1	26.6	27.8	41.4	15.4	14.1	15.4	27.1
Machinery.....	67.4	55.4	61.1	107.5	29.5	25.4	30.1	64.6
Transportation equipment except automobiles.....	37.2	35.5	20.2	11.7	13.2	13.7	9.0	6.3
Automobiles.....	30.4	16.8	10.2	48.2	12.7	8.8	5.3	29.4
Miscellaneous manufactured pro- ducts.....	11.9	12.8	15.1	16.3	5.1	5.3	7.2	9.2
Construction.....	10.3	7.6	11.4	18.1	4.3	3.1	5.2	10.9
Heat, light and power.....	36.5	34.7	35.7	34.9	20.5	18.8	20.2	22.8
Transportation, communication and storage.....	113.5	107.1	89.6	102.4	58.4	52.7	47.8	66.7
Other public utilities.....	1.8	2.5	3.0	4.7	0.8	1.1	1.6	2.8
Wholesale trade.....	84.1	89.4	119.9	144.9	37.2	39.0	60.6	87.7
Retail trade.....	101.8	117.8	148.8	169.6	43.3	48.2	66.6	95.9
Services.....	26.7	30.4	38.0	39.1	12.1	14.2	19.7	23.8
Chartered banks and insurance companies.....	26.7	27.1	28.8	40.6	13.0	12.8	13.5	24.3

For footnotes, see end of table, p. 398.

**10.—Corporation Profits, Before and After Taxes, by Industries, 1944-47—concluded**

Item	Net Income Before Taxes				Net Income After Taxes <sup>1</sup>			
	1944	1945	1946	1947	1944	1945	1946	1947
	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000
Other financial institutions.....	43.5	45.5	51.6	56.5	25.4	26.3	31.1	39.6
Companies not classified.....	0.2	0.4	0.3	0.5	0.1	0.2	0.1	0.3
<b>Total Profits, All Corporations...</b>	<b>1,158.1</b>	<b>1,161.0</b>	<b>1,334.7</b>	<b>1,701.0</b>	<b>551.8</b>	<b>555.2</b>	<b>685.9</b>	<b>1,050.2</b>
Adjustment to National Income Estimate <sup>2</sup> .....	62.9	79.0	86.3	120.0	66.2	81.8	65.1	46.8
<b>Total Profits, National Income Estimate<sup>2</sup>.....</b>	<b>1,221.0</b>	<b>1,240.0</b>	<b>1,421.0</b>	<b>1,821.0</b>	<b>618.0</b>	<b>637.0</b>	<b>751.0</b>	<b>1,097.0</b>

<sup>1</sup> Estimated refundable excess profits taxes of \$68,600,000 in 1944, \$67,500,000 in 1945 and \$17,800,000 in 1946 were not included in taxes deducted.

<sup>2</sup> Total profits of all corporations, as presented in Table 9, differ from the total of all corporations as shown here since, for national income purposes, charitable donations and depletion charges are added back to profits and adjustments are made for renegotiation of war contracts and conversion to a calendar-year basis.

**Section 4.—Estimates of National Wealth**

No official estimate of national wealth has been made since that of 1933. Latterly great emphasis has been placed on developing up-to-date series of national income and time has not permitted extensive work on estimates of national wealth. A short summary of the position is given at pp. 795-796 of the 1942 Year Book.



# CHAPTER XI.—AGRICULTURE

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Agriculture, including stock raising and horticulture, is the most important of the primary industries of the Canadian people, employing, according to the Census of 1941, 25·2\* p.c. of the total gainfully occupied population and 30·5\* p.c. of the gainfully occupied males. In addition, agriculture provides the raw materials for many Canadian manufactures, and its products in raw or manufactured form constitute a very large percentage of Canadian exports. For a statement of the occupied and the available agricultural lands in Canada, see pp. 16-17 of this volume.

An introductory outline of the historical background of Canadian agriculture is given at pp. 187-190 of the 1939 Year Book.† The present Chapter treats of current governmental activities and includes comprehensive statistics of agriculture, such as: farm income, values of agricultural production and farm capital, field crops, farm live stock and poultry, dairying, fruit, special crops, prices and miscellaneous statistics. World statistics of agriculture, formerly compiled from the publications of the International Institute of Agriculture, were not available during the War but statistics of grain production for world countries will be found at pp. 455-458.

## Section 1.—The 1948-49 National Agricultural Program and Policy‡

The financial strength and expansion in Canadian agriculture, experienced at the beginning of 1948, continued throughout the year. In the early months of 1949 some farm prices declined slightly and there was an indication that some minor farm products were not flowing as freely to international markets as previously.

\* Including persons on Active Service normally employed in agriculture.

† See list of reprints under "Agriculture", at the front of this edition.

‡ Prepared under the direction of J. G. Taggart, C.B.E., Deputy Minister of Agriculture, Ottawa.

During 1948, net and gross farm income had both reached an all-time high point; farm operating expenses continued their upward climb and prices paid and received by farmers showed increases.

During the fiscal year 1948-49, the activities of the Agricultural Prices Support Board were increased.

An important piece of legislation was the Agricultural Products Marketing Act. This Act, passed in April, 1949, provides for the marketing of agricultural products in interprovincial and export trade. The Act states that:—

“Whereas it is desirable to improve the methods and practices of marketing agricultural products of Canada; and whereas the legislatures of several of the provinces have enacted legislation respecting the marketing of agricultural products locally within the province; and whereas it is desirable to co-operate with the provinces and to enact a measure respecting the marketing of agricultural products in interprovincial and export trade . . . . The Governor in Council may by order grant authority to any board or agency authorized under the law of any province to exercise powers of regulation in relation to the marketing of any agricultural product locally within the province, to regulate the marketing of such agricultural product outside the province in interprovincial and export trade and for such purposes to exercise all or any powers like the powers exercisable by such board or agency in relation to the marketing of such agricultural product locally within the province.”

The soil conservation program of the Federal Government was expanded in 1948-49. The current program covers large rehabilitation schemes in British Columbia and the Prairie Provinces (Prairie Farm Rehabilitation Act) and in the Maritimes.

The Maritime Marshlands Rehabilitation Act was passed in May, 1948. Under an arrangement to take effect in 1949, the Federal Government will assume full responsibility for all engineering requirements and the construction and reconstruction of the main protective works. The marsh owners of the Provinces of Nova Scotia and New Brunswick will be responsible for the drainage of canals and ditches behind the main works, and organization of the marsh associations for better farm operation and practices.

It is estimated that there are approximately 100,000 acres that can be reclaimed.

**Production Programs.**—The annual Dominion-Provincial Conference held Dec. 6 to Dec. 8, 1948, was chiefly concerned with market outlets for the 1949 crop. International exchange problems continued to hamper economic recovery and to impede a return to multilateral trade. On the whole, the general objective was a maintenance of the current level of farm output.

**Farm Income.**—Farm cash income from the sale of farm products (including supplementary payments) established an all-time high record in 1948 of \$2,470,611,000, 25 p.c. above the 1947 figure of \$1,973,853,000. This marked increase in cash income was, in part, due to higher prices for farm products and, in part, to the payment on wheat participation certificates and oats and barley equalization fees.

**Post-War Subsidy and Price Policy.**—The extension of the Transitional Measures Act for another year to Mar. 31, 1950, continues the Government's power to maintain existing price controls on agricultural and other commodities, although all domestic farm-products were decontrolled by July, 1949.

Along with removal of price control most subsidies had been discontinued by 1948. The payment of three “wartime” subsidies has continued: freight assistance on western feed grain shipped into the eastern provinces and British

Columbia; production and transportation assistance on lime for agricultural purposes and quality premiums on hogs. Newfoundland became eligible for these forms of assistance in the spring of 1949.

Assistance in 1948 took the form of price support for some agricultural commodities. The Agricultural Prices Support Act, 1944, was amended in 1949, its powers being extended to Mar. 31, 1950. Under this Act, the Agricultural Prices Support Board has authority to support the price of any agricultural commodity except wheat. Owing to good production and restricted export outlets the Board supported 1948 crops of the following commodities:

*Potatoes.*—In Prince Edward Island and designated counties of New Brunswick the Board paid \$1.15 per 100 lb. for Canada No. 1 grade in the bin on the farm.

*Apples.*—Nova Scotia apples sold fresh were supported at \$3.90 per bbl. and for processing into dried apples or concentrated juice at \$2.50 per bbl. For British Columbia apples remaining unsold, producers are guaranteed \$2.00 per box up to a maximum of 250,000 boxes.

*Dried Beans.*—The Board paid \$3.75 per bu. for Ontario dried white beans, grades Canada No. 1 and No. 2 delivered to the bean warehouses up to July 31, 1949. The sum of \$200,000 was allotted to meet the deficiency between the support price and the average price realized by farmers in marketing their product. In addition, the Board purchased and shipped to Palestine for relief purposes approximately 38,000 bu. at \$3.75, which, including shipping costs, will total a further \$200,000.

*Honey.*—The Board was authorized to purchase up to 5,000,000 lb. in car-lot quantities, at 14 cents per lb. for White No. 1 grade pasteurized, or 13 cents per lb. if unpasteurized, with appropriate differentials for lower grades, less the export freight rate to Montreal.

*Dried Skim Milk.*—The Board can spend up to \$1,000,000 from May 21, 1949, for the purchase of dried skim milk at 9.5 cents per lb. for roller and 10.75 cents per lb. for spray, f.o.b. country points.

*Butter.*—Because of a marked decline in domestic prices of butter, the Board, on Apr. 1, 1949, was authorized to buy No. 1 creamery butter basis 58 cents per lb. Montreal.

*SO<sub>2</sub> Fruits.*—The Department of Agriculture provided assistance in disposing of surplus British Columbia sulphur dioxide raspberry pulp.

**Export Contracts.**—To enable the Federal Government to fulfil its obligations under the food agreements and also to export food supplies to distressed countries, Parliament, under the Agricultural Products Act, 1947, authorized the Minister of Agriculture to sell or export agricultural products, other than wheat, and establish commodity boards vested with the necessary regulatory powers. This Act is on an annual basis but may be continued in force for further 12 month periods with the approval of Parliament. In 1949 the Act was extended to Mar. 31, 1950.

Contracts for 1949 cover fewer commodities and smaller quantities than in 1948, owing to the United Kingdom dollar position. At the beginning of 1948 contracts covered wheat, bacon, beef, mutton, lamb, cheese and eggs. The wheat, mutton and lamb contracts were fulfilled. The beef contract was cancelled about the middle of 1948 and on Aug. 16, the restriction on shipment of live cattle and beef to the United States was removed. The bacon contract was increased, but shipments did not meet the original lower figure. The egg contract was reduced by mutual agreement. The cheese contract was not met.



Contracts for 1949 were as follows:—

*Bacon.*—The contract for the calendar year covers 160,000,000 lb. grade A Wiltshire sides at \$36 per 100 lb. free-along-side Canadian seaboard. This price is the same as in the 1948 agreement.

*Cheese.*—The 1949 contract runs from Apr. 1 to Dec. 31, 1949, and calls for 50,000,000 lb. at 30 cents per lb. first grade free-on-board factory. Both quantity and price remain unchanged from the previous contract.

*Eggs.*—This contract is for 46,000,000 doz. eggs to be shipped between Feb. 1 and Dec. 31, 1949, at 52.5 cents per doz. for grade A large storage eggs at Montreal. This price represents a drop from the previous contract price.

*Wheat.*—Exports of wheat are administered by the Canadian Wheat Board. The four-year wheat contract covers the 1946 to 1949 crops inclusive. In each of the last two years the minimum quantity specified is 140,000,000 bu. From the 1948 commitment, 450,000 long tons of flour were to be shipped; from the 1949 quantity, 400,000 long tons, which is 100,000 long tons above the minimum amount provided for in the agreement. The price for No. 1 Manitoba Northern in store Fort William—Port Arthur, Vancouver or Churchill is \$2 per bu., plus five cents carrying charge for both the 1948 and 1949 crops.

*Fibre Flaxseed.*—The Federal Government has had agreements with the Government of Northern Ireland for quantities of Canada No. 1 grade fibre flaxseed from the 1947, 1948 and 1949 crops. The first agreement covered 26,000 bu., each of the last two, 10,000 bu. The price under the 1947 and 1948 contracts was \$8.50 per bu. free-on-board British steamer Canadian seaboard; under the 1949 agreement it was reduced to \$8.00 per bu.

*Other Products.*—The Minister of Trade and Commerce on May 9, 1949, announced that the United Kingdom agreed to make a token purchase of apples, and a small quantity of sulphur dioxide fruit pulp now held by the Federal Government.

## Section 2.—Government in Relation to Agriculture

It is provided in Sect. 95 of the British North America Act that “in each province the legislature may make laws in relation to agriculture in the province”; it is also declared “that the Parliament of Canada may from time to time make laws in relation to agriculture in all or any of the provinces; and any law of the legislature of a province relative to agriculture—shall have effect in and for the province as long and as far only as it is not repugnant to any Act of the Parliament of Canada”. As a result of this provision, there exists at the present time a Department of Agriculture, with a Minister of Agriculture at its head, in the Federal Government and in each of the provinces except Newfoundland, where agricultural affairs are dealt with by the Agricultural Division of the Department of Natural Resources.

### Subsection 1.—Canadian Relationship with FAO\*

The Fourth Session of the Conference of the Food and Agriculture Organization of the United Nations, held at Washington, D.C., Nov. 15-29, 1948, reviewed the world food situation, considered the technical work of FAO and gave careful attention to financial and administrative matters having to do with the Organization. Admission of Saudi Arabia to membership increased the number of member nations to 58.

\* Details regarding the organization of the Food and Agriculture Organization as well as the first, second and third Conferences are given in previous Year Books beginning with the 1946 edition.



Among the main developments in FAO in 1948 was the organization of divisions having to do with rural welfare and commodity distribution together with a further strengthening of the regional officers.

As a member of the Council of FAO as well as one of the principal food exporters of the world, Canada has continued to maintain a close relationship with FAO. Canada's representative acted as Chairman of the Finance Committee through the regime of the Executive Committee when FAO was being organized and continued in this capacity under Canada's membership in the Council of FAO until the Washington Conference in 1948. Canada has been a member of the International Emergency Food Committee since its establishment, a Canadian representative having been elected Chairman for 1948-49. Membership in the Working Party on International Commodity Arrangements was accorded Canada at the Washington Conference in 1948. The chairmanship of this Working Party has also been assigned to the Canadian representative.

Liaison with FAO Headquarters on non-policy matters is maintained through the Canadian Interdepartmental FAO Committee composed of representatives of those departments of the Federal Government that are particularly concerned with the work of FAO. In addition to functioning in an advisory capacity to the Government, this Committee assists in the collection of information required by FAO in its work and also serves as a means of disseminating information coming from FAO.

Canada has also been a source of technical assistance for FAO. In addition to providing representatives on the various technical advisory committees established by FAO, technical assistance has been supplied to missions and conferences in connection with grain production and marketing, the preservation of stored products, agricultural engineering and various problems in the fisheries industry. The results of research work carried on in Canada in connection with the control of rinderpest have already aided in the establishment of a program for the control of this dread disease in the Far East. Samples of corn and other seeds have also been provided for testing by other member nations.

### Subsection 2.—The Federal Government\*

#### Farm Credit

The Federal Government has set up several agencies to handle the matter of farm credit; the Canadian Farm Loan Board is empowered to make long-term loans to farmers† and the chartered banks, under the Farm Improvement Loans Act, to provide intermediate and short-term credit.

**The Canadian Farm Loan Board.**‡—This Board was appointed by the Governor in Council under the provisions of the Canadian Farm Loan Act (c. 66, R.S.C. 1927, as amended by c. 46, Statutes of 1934 and c. 16, Statutes of 1935) and, as an agency of the Crown in the right of Canada, administers a system of long-term mortgage credit for farmers throughout the country. The Board commenced its work in 1929 and since 1935 has carried on lending operations in all provinces.

\* Except as otherwise indicated this material was prepared under the direction of J. G. Taggart, C.B.E., Deputy Minister of Agriculture, Ottawa.

† In addition to the credit supplied by the Canadian Farm Loan Board, and in order to meet the demand for long-term loans on easier terms of repayment and on a higher ratio in relation to farm values than that available from the Canadian Farm Loan Board and to facilitate refinancing indebtedness, the Province of Quebec established the Quebec Farm Credit Bureau which commenced operations in March, 1937.

‡ Revised by W. A. Reeve, Secretary, Canadian Farm Loan Board, Ottawa.

The Board lends money to farmers to pay debts, purchase live stock and farm equipment, assist in the purchase of farm land, make farm improvements and for any other purpose considered as improving the value of the land for agricultural purposes.

Loans are made on the security of first mortgages on farm lands actually operated by the borrower up to an amount not exceeding 50 p.c. of the appraised value of such farm lands and not in excess of \$5,000; such loans are repayable on an amortized plan over periods up to twenty-five years.

Further advances by way of second mortgage may be made to first mortgage borrowers who require additional funds. The amount of such additional advances is not to exceed 50 p.c. of the first mortgage loan, nor the aggregate of first and second mortgage loans to exceed two-thirds of the appraised value of the farm land mortgaged nor, in any event, an aggregate of \$6,000.

The interest rate on loans made on or after Apr. 2, 1945, is  $4\frac{1}{2}$  p.c. on first mortgage and 5 p.c. on second mortgage. The interest rate on loans made prior to Apr. 2, 1945, is 5 p.c. on first mortgage and 6 p.c. on second mortgage.

Particulars of the capital requirements of the Board and other details appear at p. 185 of the 1940 Year Book.

From the commencement of operations in 1929 to Mar. 31, 1948, the Board made 29,093 first mortgage and 9,461 second mortgage loans for a total amount of \$60,728,957 disbursed. Of this amount, \$37,069,120 has been repaid. At Mar. 31, 1948, the principal assets of the Board amounted to \$23,038,948 made up as follows: 14,790 first mortgage loans, \$21,932,657; 1,442 second mortgage loans, \$658,832; 306 sale agreements, \$402,632; and 20 parcels of real estate, \$44,827.

The average amount lent annually during the first ten years of operations was \$3,860,000. The volume of loans approved dropped from \$4,348,950 in 1940 to \$1,215,450 in 1943 but, since then, has increased steadily to \$3,460,550 in 1948. The trend in recent years is toward decreased borrowing to pay debts and increased borrowing to purchase land and farming equipment.

### 1.—Applications for Farm Loans Received, Loans Approved and Loans Disbursed, Years Ended Mar. 31, 1940-48

NOTE.—Figures for 1930-39 are given at p. 186 of the 1940 Year Book.

Year	Applications Received		Loans Approved					Loans Paid Out		
	No.	Amount	First Mortgage		Second Mortgage		Total Amount	First Mortgage	Second Mortgage	Total
			No.	Amount	No.	Amount				
		\$		\$		\$	\$	\$	\$	\$
1940.....	4,666	8,941,899	2,380	4,149,400	464	199,550	4,348,950	4,130,765	211,897	4,342,662
1941.....	2,806	5,769,950	1,459	2,655,050	228	104,350	2,759,400	2,619,109	108,398	2,727,507
1942.....	1,812	3,820,156	1,024	1,891,100	155	75,650	1,966,750	2,053,712	79,802	2,133,514
1943.....	1,055	2,277,830	601	1,156,150	135	59,300	1,215,450	1,260,033	60,223	1,320,256
1944.....	1,037	2,419,001	603	1,315,950	162	90,850	1,406,800	1,251,949	84,154	1,336,103
1945.....	1,306	3,293,559	728	1,623,000	176	100,700	1,723,700	1,561,174	100,235	1,661,409
1946.....	1,846	4,758,916	918	2,161,050	258	163,050	2,324,100	1,977,902	143,305	2,121,207
1947.....	2,015	5,579,142	1,312	3,165,250	404	253,900	3,419,150	3,030,915	242,896	3,273,811
1948.....	2,380	6,672,998	1,301	3,145,150	517	315,400	3,460,550	2,911,167	274,073	3,185,240

## 2.—Farm Loans Approved, with Details of Appraised Values of Security, by Provinces, Year Ended Mar. 31, 1948

NOTE.—Figures for years prior to 1948 will be found in corresponding tables of previous editions of the Year Book.

Province	Loans Approved					Appraised Values of Security at Time of Loan		
	First Mortgage		Second Mortgage		Total Amount	Land	Buildings	Total
	No.	Amount	No.	Amount				
		\$		\$	\$	\$	\$	\$
Prince Edward Island.	48	102,550	17	9,150	111,700	153,240	80,096	233,336
Nova Scotia.....	29	67,500	2	1,100	68,600	104,978	70,250	175,228
New Brunswick.....	33	70,500	4	2,050	72,550	107,076	74,023	181,099
Quebec.....	132	354,350	42	26,900	381,250	485,360	340,445	825,805
Ontario.....	135	383,300	34	21,400	404,700	522,012	343,924	865,936
Manitoba.....	208	477,450	107	69,450	546,900	1,015,742	379,922	1,395,664
Saskatchewan.....	433	1,076,050	227	134,700	1,210,750	2,259,272	626,714	2,885,986
Alberta.....	203	414,350	65	36,500	450,850	928,721	257,243	1,185,964
British Columbia.....	80	199,100	19	14,150	213,250	331,605	184,170	515,775
<b>Totals.....</b>	<b>1,301</b>	<b>3,145,150</b>	<b>517</b>	<b>315,400</b>	<b>3,460,550</b>	<b>5,908,006</b>	<b>2,356,787</b>	<b>8,264,793</b>

**Farm Improvement Loans Act.\***—The Farm Improvement Loans Act, 1944, c. 41, is designed to provide short-term and intermediate-term credit to farmers. Under its provisions, the Federal Government authorizes the chartered banks of Canada over a three-year period to make loans up to \$250,000,000 under a 10 p.c. Government guarantee against loss. The Act was extended another three years by an amendment passed at the 1948 session of Parliament. The maximum of an individual loan is \$3,000, the interest rate is 5 p.c. simple interest and the repayment periods are from one to ten years, depending upon the amount borrowed and the purpose for which the loan is obtained. Loans under the Act are restricted to farmers.

There are two broad aims behind this legislation, the first of which is the improvement and development of farms. Loans are made to enable a farmer to equip his farm with modern, labour-saving equipment, more and better live stock, and to make such other improvements necessary to maximum farm production. The second is the improvement of living conditions on farms. These loans enable the farmer to provide his home with electrification, refrigeration, heating systems, water systems, and all those things that make for comfort and convenience in living and do much to eliminate drudgery for the farm housewife.

There are seven classes of Farm Improvement Loans: (1) purchase of agricultural implements; (2) purchase of live stock; (3) purchase of agricultural equipment or installation of a farm electrical system; (4) alteration or improvement of a farm electrical system; (5) fencing or drainage; (6) construction, repair or alteration of, or addition to, farm buildings; (7) general improvement or development of the farm.

\* Prepared by D. M. McRae, Supervisor, Farm Improvement Loans, Department of Finance, Ottawa.



Up to Dec. 31, 1948 (which period covers the first forty-six months of operation of this Act), 69,818 loans were made for a total of \$60,754,259.93. During this period of operations under the Act there have been no claims for losses. Particulars of loans by provinces are:—

<i>Province</i>	<i>No.</i>	<i>Amount</i>
		\$
Alberta.....	25,562	21,810,811.12
Saskatchewan.....	23,633	20,944,378.75
Manitoba.....	10,704	8,985,696.83
Ontario.....	6,332	5,998,770.96
British Columbia.....	1,828	1,601,957.81
Quebec.....	1,188	952,330.68
Nova Scotia.....	259	197,669.54
New Brunswick.....	209	192,966.04
Prince Edward Island.....	103	69,678.20
<b>TOTALS.....</b>	<b>69,818</b>	<b>60,754,259.93</b>

### Research and Experimentation

In its efforts to aid the farmer in the solution of his problems, the Department of Agriculture conducts, on a broad scale, scientific research and experimentation on the control of pests and diseases, the nutritional requirements of plants and animals, the microbiology of soils and foods, the breeding and testing of new varieties of plants and animals, investigations of crop production and cultural methods and many other matters. The two main divisions of the Department that carry on such work are Science Service and Experimental Farms Service.

**Science Service.**—The work of Science Service is directed toward the solution of practical problems of agriculture through the application of scientific investigation. The work is carried on in co-operation with other agencies within and without the Department, not only at the central laboratories at Ottawa, but at branch laboratories all across the country.

Many studies are being carried on in the field of animal pathology. Among the more important are a comprehensive investigation of the antigenicity of tuberculin and a fundamental investigation of the reactivity of fowl to various invading agents, with a view to perfecting diagnostic procedures. Bang's disease and mastitis of cattle are being investigated, while with poultry major attention is focused on pullorum disease and coccidiosis.

The research work of the Division of Bacteriology and Dairy Research is devoted to problems of milk production and the manufacture of dairy products, food processing and preservation, soil fertility, and to other varied problems of agricultural production bearing on the science of microbiology.

Dairy research includes studies in improved methods for clean milk production and the evaluation of milk quality. Projects in cheese investigation deal with better control of the manufacturing process, and the cause and remedy of defects of flavour and texture in Cheddar cheese. Methods for improving the keeping quality of butter are also under study.

Studies in food microbiology are directed towards improvement in quality of Canadian fruit and vegetables preserved by different methods, with special attention to frozen-pack products. Improvement in production and in control methods for dried-egg products are under study.



Fundamental studies of soil micro-organisms are being conducted as a basis for application to practical problems of soil fertility and crop health. Research is also conducted on the inoculation of seed and soil by nitrogen-fixing bacteria; microbiological methods for evaluating soil fertility; and the relation of soil micro-organisms to soil-borne plant diseases. Other research projects deal with such diverse problems as foulbrood diseases of bees, the development of microbiological methods for vitamin assay, and the detection of new anti-biotics which may have important applications in agriculture.

Weeds constitute one of the more important problems with which the farmer must contend. In the botanical laboratories, research is in progress on the occurrence and distribution of weeds throughout Canada. Life histories of weeds are studied together with methods of control of certain species. Physiological studies on the effects of herbicides are being carried on.

The Dominion Arboretum and Botanic Garden grows an extensive collection of trees and shrubs that is of much interest to horticulturists, botanists and the general public. A plant identification service is provided and research conducted on the classification and distribution of the native and introduced plants of Canada.

In an effort to reduce the losses from seed-borne diseases of crop plants, seed-testing techniques are being investigated with a view to determining the presence of pathogenic organisms in or on the seed. Various commercial disinfectants and seed-treating machines are under test to determine their value in the control of seed-borne diseases.

Diseases of cereal and forage crops are under constant study with the object of evolving effective measures and developing resistant varieties which will produce satisfactory crops in the presence of disease organisms. Similar investigations are conducted with horticultural crops with major attention directed to crop protection and disease control rather than development of resistance. In the case of potatoes, however, breeding for disease resistance is being carried out in co-operation with the Experimental Farms Service.

In the chemical laboratories of Science Service, research projects are in progress on animal nutrition, food and plant chemistry, soils, fertilizers, and vitamin and physiological chemistry. A study of factors affecting the digestibility of feeds and an evaluation of feeding stuffs on the basis of digestibility, together with research on the biological value of proteins and non-protein nitrogen in which stable isotopic tracers are employed, will provide useful information for the scientific feeding of different classes of live stock. Vitamin studies include the mode of action of vitamins A and D, the utilization of precursors and the effect of other dietary factors on vitamin action, together with a critical evaluation of both chemical and biological methods of vitamin assay. Studies in progress demonstrate the usefulness and the dangers of hormonal stimulation and of endocrine depressors for dairy cattle and poultry. Of interest also to the stockman is the chemical and biological diagnosis of pregnancy and the tattooing of live stock for identification purposes.

Research in soil chemistry includes a study of the colloid fractions of soils in relation to soil types, soil fertility and phosphate fixation; a study of the composition of soil organic matter and its maintenance in cultivated soils; an investigation of the mineralogical composition of Canadian soils; the adaptation of chemical methods for the determination of fertilizer requirements of soils, and studies of the minor element content of soils in relation to physiological disorders of plants and animals. Soil fertility investigations are conducted in the field and greenhouse

in connection with fertilizer trials on soil types, the effect of soil amendments on soil reaction and crop growth, the effect of crop rotations on the nitrogen and organic matter content of prairie soils, the production of canning and orchard crops, and the reclamation of saline soils resulting from flooding by sea water.

Investigations under way in the field of entomology embrace studies of insects affecting man and animals, forest, field, garden and orchard crops, and materials in transit or storage. Specific projects relate to the studies of harmful and beneficial insects, appraisal of their damage, and methods for their control. The methods of control under study include management practices, cultural measures, chemicals, and the production and dissemination of parasites and diseases that attack noxious insects.

Studies on insects attacking man and animals include a wide range of household pests, cattle warbles, ticks, and lice; the preparation and testing of repellents for protection from biting flies; and control of mosquitoes and houseflies over extensive areas. Considerable attention is being given to the newer insecticides and practical methods for their application.

Forest insect control activities embrace the nation-wide forest insect survey, begun in 1936, and intensified in recent years in an effort to devise a reliable means of forecasting impending outbreaks. Particular attention is given to such widespread destructive pests as the spruce budworm and sawflies attacking conifers, the hemlock looper and bark beetles, the bronze birch borer and the vectors of Dutch elm disease. Control investigations centre around long-term forest management projects, the use of parasites and diseases, and the exploration of the possibilities of chemical control.

Field-crop and garden insect investigations include studies on grasshoppers, the wheat-stem sawfly, wireworms, cutworms, white grubs, the European corn borer, root maggots, potato aphids, and nematodes. The abundance and distribution of these pests are measured annually by extensive field surveys which provide a basis for planning control campaigns. Insecticides are widely employed in these investigations. Where possible, however, modification of cultural practices are utilized, especially in the control of insects injurious to field crops.

Of the orchard pests, codling moth, European red mite, eye-spotted budmoth, apple maggot, oriental fruit moth, oyster-shell scale and pear psylla are among the subjects of major study. Emphasis is placed on the use of recently developed insecticides, including their combination with fungicides, and on the effect of spray programs upon the whole biotic complex of the orchard. Insect control by parasites and diseases and by orchard management is receiving increased attention.

Research on stored-product insects embraces such pests as the rust-red grain beetle, the Indian meal moth, mites, and spider beetles. Practical controls have been developed utilizing fumigants, abrasives, mechanical methods, proper storage construction, and plant management.

Special consideration is given at the Dominion Parasite Laboratory, Belleville, Ont., to the importation and production of insect parasites of injurious species for distribution in forests, fields, gardens, orchards, and greenhouses. Parasites are employed in Canada against thirty important insect pests.

A national collection of insects is maintained. The specialists engaged in this enterprise provide an identification service in addition to performing formal studies in taxonomy and biology of insects.

Activities designed to prevent the introduction into Canada of foreign insects and plant diseases are centred in the Division of Plant Protection. In addition, this Division is responsible for the examination of plants and plant products being exported to countries requiring that such material be free of plant pests and diseases. The supervision of the production of seed potatoes throughout Canada in accordance with the regulations in effect; the supervision of surveys and control of newly introduced destructive plant pests and diseases; and the supervision of fumigation experiments to destroy insect life in plants and plant products at varying temperatures with various lethal fumigants are all functions of the Division. The effects of fumigants on suitability of products for human consumption or for seed are also under study.

### **The Dominion Experimental Farms**

At pp. 349-352 of the 1948-49 edition of the Year Book an outline is given of the organization and the accomplishments of the Dominion Experimental Farms. No change in that outline has been made and in order to save space the reader is referred to that edition for this information.

### **Subsection 3.—Provincial Departments of Agriculture\***

Each of the provinces except Newfoundland, under Sect. 95 of the British North America Act, has a Department of Agriculture which directs general agricultural policies, administers provincial legislation affecting agriculture, and provides extensive services to assist rural people within the province. A brief treatment of these provincial departments follows.

**Newfoundland.**—Government agricultural services in Newfoundland, since the establishment of Commission Government, have been operated by the Agricultural Division of the Department of Natural Resources. The Agricultural Division maintains an extension service and encourages agricultural development by the payment of bonuses for the purchase of pure-bred sires and for the clearing of new land, assistance with agricultural exhibitions, the payment of subsidies on agricultural limestone, and the rendering of a soil survey service. Practical farm training is given to young men at the Government Demonstration Farm.

The chief crops in Newfoundland are hay, potatoes, turnips, cabbage, carrots, beets, other vegetables and small fruits.

**Prince Edward Island.**—The Department of Agriculture is presided over by a Minister, assisted by a Deputy Minister, a Dairy Inspector, a Pathologist and Veterinarian, a Soil Assistant, two County Representatives, a Superintendent of Women's Institutes and an Assistant.

**Nova Scotia.**—Provincial agricultural policies in Nova Scotia are administered by the Department of Agriculture and Marketing, with the Minister's Office and those of the Deputy Minister, the Director of Marketing, and the Superintendent of Agricultural Services located at Halifax. The Department is composed of several Branches, each headed by a Director. The Branches include: Agricultural Engineering Services; Animal and Poultry Services; Chemistry, Soils and Fertilizer Services; Dairy Services; Extension Services; Field Crops Services; Horticultural and Biological Services; Immigration and Land Settlement; and Marketing Services. In

\* The material in this Subsection was provided by the Departments of Agriculture of the various provinces.



addition, the Nova Scotia Agricultural College which is operated by this Department is also considered as a separate Branch and is headed by a Principal. With the exception of the agricultural representatives who are located in the 18 county offices, all technical officials are located at the Nova Scotia Agricultural College, Truro.

**New Brunswick.**—Provincial Government policy concerning agriculture in New Brunswick is directed by the Department of Agriculture. This Department has as its head the Minister of Agriculture who is assisted by a Deputy Minister and the Directors of the following Services: extension, live stock, dairy, veterinary, poultry, horticulture, field husbandry, soils and crops, plant protection, potato production and marketing, agricultural engineering, home economics, Credit Union Co-operative Association, agricultural education, and apiculture.

**Quebec.**—The Department of Agriculture of Quebec is divided into the following branches: agricultural education, rural economics, extension, animal husbandry, horticulture, field husbandry, information and research, handicrafts and home economics, health of animals and rural engineering. Each branch is divided into sections dealing with particular problems. There are also many other special organizations such as the Farm Credit Bureau, the Research Council, the Rural Electrification Bureau, and the Dairy Industry Commission. The Provincial Entomologist and a Provincial Botanist are included on the staff of the Department.

To encourage better farming, an Agricultural Merit Competition for junior and senior farmers is held each year; County Farm Improvement Competitions are also held. Co-operation is widespread in rural Quebec where there are 645 agricultural co-operatives with 62,474 members and 89 agricultural societies with more than 26,000 members, together with 114 clubs for young farmers with 2,356 members and 866 clubs for farm women (Cercles de Fermières) with a total membership of 49,000.

Agricultural instruction is given in 3 Colleges of Agriculture leading to the B.S.A. degree, in 17 secondary Schools of Agriculture and in 6 Agricultural Orphanages.

**Ontario.**—The Ontario Department of Agriculture maintains administrative, educational, extension and financial assistance services to agriculture in Ontario. These services are carried on through 12 branches and 6 institutions: (1) the Live Stock Branch promotes live-stock improvement policies, licenses and examines stallions and gives support to pure-bred live-stock associations; (2) the Crops, Seeds and Weeds Branch assists in the development of good cultural practices, the use of improved strains of seed, the promotion of improved pastures and the eradication of weeds; (3) the Dairy Branch provides an inspection, instruction and supervision service for all creameries and cheese factories; (4) the Farm Economics Branch carries on cost studies of agricultural production in co-operation with agricultural organizations; (5) the Fruit Branch enforces fruit and vegetable regulations and provides an information service to growers; (6) the Co-operation and Markets Branch administers the Farm Products Control Act and the Credit Unions Act, and supervises co-operatives under the Co-operative Marketing Loans Act; (7) the Milk Control Board, under the Milk Control Act, regulates and supervises the marketing of fluid milk; the Agricultural and Horticultural Societies Branch gives assistance to agricultural and horticultural fairs and exhibitions, ploughing matches and other competitions; (8) the Northern Ontario Branch gives assistance to farmers



and settlers in northern Ontario in connection with land clearing and breaking; (9) the Agricultural Representative Branch carries on an educational and extension service through agricultural representatives located in all counties and districts and has direction over junior farmer activities; (10) the Women's Institute Branch gives leadership and direction to farm women's organized activities; (11) the Statistics and Publications Branch, in co-operation with the Dominion Bureau of Statistics, provides a crop-reporting service and gathers and disseminates data on crops, live stock and dairy products; (12) the Ontario Farm Service Force is organized to secure and provide help for farmers during their busy seasons. The Department is responsible for the financing and administration of the Ontario Agricultural College, the Ontario Veterinary College, the Kemptville Agricultural School, the Horticultural Experiment Station at Vineland, the Western Ontario Experimental Farm at Ridgetown and the Demonstration Farm at New Liskeard.

**Manitoba.**—The Department of Agriculture of Manitoba serves through the following branches: agricultural extension; live stock; dairy; agricultural publications and statistics; weeds administration; farm labour; debt adjustment; and Provincial Veterinary Laboratory.

The Extension Service deals with agronomy, horticulture, poultry, agricultural engineering, beekeeping, junior live stock, boys' and girls' clubs and women's work, with specialists devoting their attention to these subjects. Meetings, field days, and short courses are held throughout the Province. There are 23 agricultural representative offices in Manitoba, each representative serving from 1 to 5 municipalities.

The Dairy Branch administers the Dairy Act, supervises the grading of cream, inspects creameries and cheese factories, gives instruction in cheese- and butter-making, issues licences to makers of dairy products and to cream graders, furnishes plans and specifications in connection with the establishment of new creameries and cheese factories, etc.

The Agricultural Publications and Statistics Branch publishes and distributes, annually, approximately 100,000 bulletins, circulars, posters, leaflets, etc.

The Weeds Administration Branch directs the activities of 15 municipal weed-control units comprising 70 rural municipalities engaged in eradicating deep-rooted, persistent perennial weeds, supervises weed demonstrations, investigates weed problems, conducts weed surveys and prepares weed literature, radio addresses, articles, pictures, mounted weed specimens, etc.

The Veterinary Laboratory operates a diagnostic laboratory for animal diseases, the services of this laboratory being available to veterinaries and live-stock owners.

**Saskatchewan.**—The Department of Agriculture in the Province of Saskatchewan maintains the following services: (1) Administration, which supervises the administrative activities of the Department, including personnel, policies and expenditures under legislative appropriation; (2) Agricultural Representative Service, which is the extension branch. Under the Agricultural Act, the Province is divided into Agricultural Conservation and Improvement Districts where qualified men carry on a program of agricultural improvement, featuring stability in agriculture, by soil conservation and improved live stock, grain and forage production. An Agricultural Co-operative Extension program functions in this Province with the Federal Government and the University of Saskatchewan; (3) the Apiary Branch, which registers beekeepers, inspects apiaries and promotes better management practices; (4) the Conservation and Development Branch, which promotes the

organization of activities to save, conserve or develop the soil and water resources of the Province (irrigation, drainage, reclamation) and assists, in collaboration with the Federal Government, in the installation and administration of works in province-wide project programs. This Branch operates irrigation and dry-land winter-feed farms, licenses water users and the sale of farm implements in Saskatchewan; (5) the Dairy Branch, which licenses and inspects dairy manufacturing plants and frozen food locker plants, licenses cream graders and milk and cream testers, and promotes herd improvement through cow-testing centres and organized Herd Improvement Associations; (6) the Field Crops Branch, which promotes good cropping, tillage and soil conservation practices, encourages the use of alfalfa and grass mixtures for hay production, the improvement of native meadows and farm pastures, the maintenance of fodder and feed and seed grain reserves, administers emergency policies in fodder and feed grain, encourages control measures for insect and weed pests and organizes provincial campaigns for insect and weed control, encourages the use and distribution of good quality seed of recommended varieties and operates a seed-cleaning plant; (7) the Lands Branch, which administers lands in the settled part of Saskatchewan owned by the Province which are used for agricultural or pasturage purposes, classifies Crown land according to the use for which it is suited and disposes of such land under long-term lease or reservation for inclusion in a private unit or a land utilization project; (8) the Live Stock Branch, which encourages the use of suitable animals for breeding purposes by establishment of pure-bred sire areas, gives assistance in purchase and distribution of stallions, bulls, boars and rams, examines and licenses stallions, arranges for exhibits of live stock, registers brands, bonds and licenses live-stock dealers and agents, wool-warehouse operators, wool collectors and buyers, promotes warble fly and other live-stock insect control and advises on live-stock feeding and management; (9) the Poultry Branch, which maintains flock-culling and turkey-grading and -banding services, administers an approved hatchery policy, licenses wholesalers and first receivers of poultry products, hatcheries and hatchery agents, bonds produce dealers and poultry buyers, and promotes flock improvement; (10) the Statistics Branch, which, in co-operation with the Dominion Bureau of Statistics, maintains a crop-reporting service and gathers data regarding crops and live stock, including production, marketing and income; (11) the Veterinary Branch, which investigates conditions with a view to safeguarding the health of live stock and poultry and co-operates with Federal officials and practising veterinarians in disease control.

**Alberta.**—To serve the people of Alberta, the Department of Agriculture is divided into a number of branches, each concerned with a particular phase of the industry.

The Field Crops Branch deals with all matters pertaining to the utilization of the soil and production of crops. There have been set up, in the Province, Agricultural Service Boards on a municipal basis. These Boards carry on certain local programs in co-operation with the Department.

The Live Stock Branch aids in maintaining the quality of Alberta herds and flocks through policies designed to assist farmers in securing pure-bred herd sires. The live-stock industry is also given assistance by the services of an artificial insemination laboratory established at the School of Agriculture at Olds. The work of the Branch includes the inspection of stallions and the administration of Acts relating to stock inspection, brands, domestic animals, and the sale of horned cattle.

The Dairy Branch conducts chemical and bacteriological analyses and administers all matters pertaining to the dairy industry. Prescribed standards in construction and sanitation practices, enforced through licensing and inspection, are required of all dairy manufacturing, milk distributing and frozen food locker plants.

Growth of the poultry industry during and since the War has greatly increased the work of the Poultry Branch. This Branch carries on programs to improve poultry husbandry, and through a flock approval policy the control of pullorum disease is being accomplished. It also maintains an up-to-date demonstration and breeding plant at Oliver.

The Veterinary Services Branch was recently reorganized, and now comprises the former office of the Provincial Veterinarian and the Veterinary Laboratory. The new Branch is doing much to help producers understand disease problems and their control.

The Apiculture Branch administers the Bee Diseases Act, which requires the registration of all beekeepers and the maintenance of an inspection service. The Branch also carries on a considerable amount of general educational work.

The Agricultural Extension Service operates through 35 offices, in which there are located 39 District Agriculturists and 15 District Home Economists. The District Agriculturists work with farmers, assisting them with their many problems and carrying to them the various Departmental policies designed to improve the standard of agricultural practices throughout the Province. The District Home Economists provide a complementary service for farm women, aiding them in matters pertaining to foods and nutrition, sewing and clothing, home administration problems, etc.

Two schools of agriculture, located at Olds and Vermilion, provide 400 students each year with a practical education in agriculture and home economics. The course is of two years duration. During the month of July, the Schools are in constant use for various short courses for farm men and women and young people.

The Alberta Junior Farm and Home Clubs educate farm young people in the practical phases of farming and homemaking, and train them in the essentials of good citizenship. In 1948 there were 327 junior clubs, with a total membership of about 5,452.

The Department issues bulletins dealing with agricultural and home economics topics. It assembles statistical data which are required by many organizations within the Province.

**British Columbia.**—The Department of Agriculture consists of four main divisions: (1) the Administrative Division is responsible for the general direction of agricultural policies, administration of legislation affecting agriculture, supervision of extension programs, collection of agricultural statistics, compilation of reports and publications, preparation of material for agricultural exhibitions, supervision of farmers' and women's institutes; and markets extension; (2) the Animal Industry Division supervises live-stock work including: promotion and improvement of animal production, fur farms, brand inspection, inspection of beef grading, control of contagious diseases of animals, eradication of insect pests detrimental to live stock, and field extension connected with animal nutritional work. This Division consists of general live-stock, veterinary, dairy, and poultry branches; (3) the Plant Industry Division includes: horticulture, field crop, plant pathology, entomology and apiculture branches; fruit, vegetable and seed production and surveys dealing with orchards, small fruits, flowering bulbs and greenhouse areas



are supervised; suppression of insect pests and plant disease inspection with control of noxious weeds and general promotion of crop production; (4) the Agricultural Development and Extension Division includes field extension work through the district agriculturists service, clearing agricultural lands for production, agricultural engineering, farm labour supply, and junior club projects.

Extension Division officials of the Department are located in 25 agricultural centres of the Province.

#### **Subsection 4.—Provincial Agricultural Colleges and Schools**

A treatment of this subject will be found at pp. 203-213 of the 1943-44 Year Book.

### **Section 3.—Statistics of Agriculture\***

The collection, compilation and publication of statistics relating to agriculture is a responsibility of the Dominion Bureau of Statistics. Valuable information is obtained through the decennial Census of Canada and each quinquennial Census of the Prairie Provinces. The more important data from the 1941 Census are given at pp. 250-254 of the 1946 Year Book; see pp. 390-396 of the 1948-49 edition for recent data on the Quinquennial Census of 1946. The Bureau also collects and publishes both primary and secondary statistics of agriculture including statistics of the production and distribution of agricultural commodities on an annual and monthly basis. The primary statistics relate mainly to the reporting of crop conditions, crop and live-stock estimates, values of farm lands, wages of farm labour and monthly and annual prices received by farmers for their products. The secondary statistics relate to the marketing of grain and live stock, dairying, milling and sugar industries and cold-storage holdings.

In the collection of annual and monthly statistics the Federal Department of Agriculture, the Provincial Departments of Agriculture, and such agencies as the Board of Grain Commissioners and the Canadian Wheat Board co-operate with the Bureau. Many thousands of farmers throughout Canada also voluntarily send in reports.

#### **Subsection 1.—Farm Income**

**Cash Income from the Sale of Farm Products.**—The estimates of farm cash income in this subsection are based on reports of marketings and prices received by farmers for principal farm products and are subject to revision. The estimates include the amounts paid on account of wheat participation certificates, oats, barley and flax adjusting and equalization payments and those Federal and Provincial Government payments which farmers receive as subsidies to prices. Farmers' cash income from the sale of farm products totalling \$2,449,865,000 in 1948 broke all previous record returns. Compared with the revised and previous all-time high of \$1,962,276,000 established in 1947, the 1948 figure represents a gain of \$487,589,000 or about 25 p.c. When supplementary payments are included, cash income in 1948 amounted to \$2,470,611,000 as against \$1,973,853,000 a year earlier.

The substantial gain in farm cash income in 1948 can be attributed largely to rising prices and the large sums of money distributed by the Canadian Wheat Board and western grain companies in the form of grain equalization and participation payments. During 1948 these payments, totalling \$178,590,000, equalled approximately one-third of the gain in the cash income over 1947.

High levels of domestic purchasing power as a result of full employment and high wages, together with a strong world-wide demand for short supplies of producer and consumer goods, were important factors affecting the general level of agricultural prices

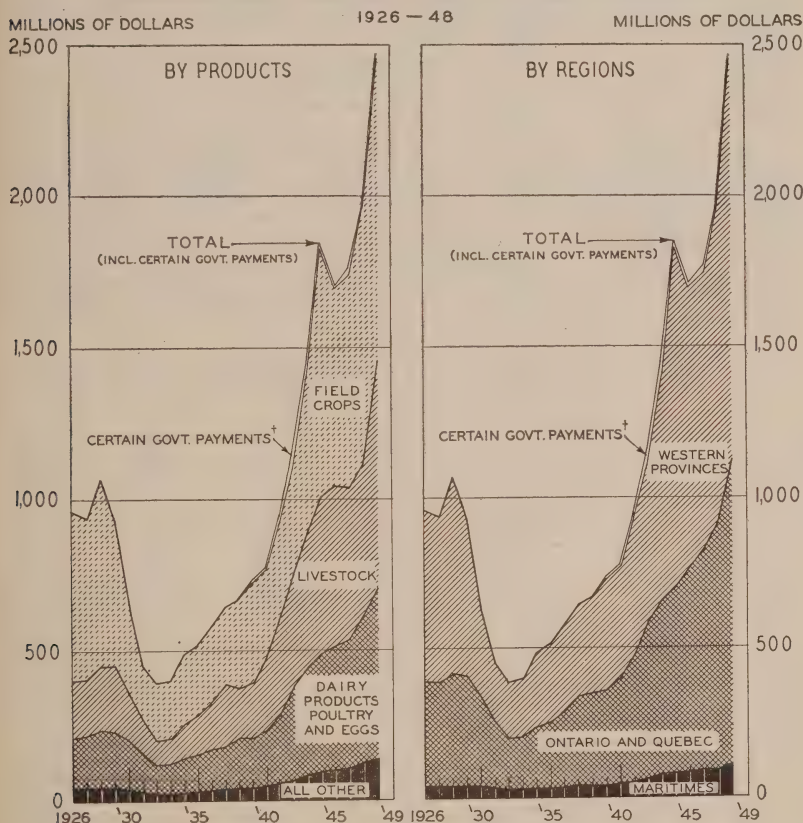
\* Revised in the Agriculture Division, Dominion Bureau of Statistics, Ottawa.



which averaged almost 20 p.c. higher than in 1947. Early in 1948 it was announced that the United Kingdom had agreed to pay Canada higher prices for purchases of bacon, beef, eggs and cheese. Prices of poultry meat were also strengthened during the year as a result of the lowering of the United States tariff on Jan. 1, 1948, and the subsequent substantial shipments southward. On Apr. 1, 1948, the initial price to prairie wheat producers for No. 1 Northern at the Lakehead was advanced from \$1.35 to \$1.55 per bu. At the same time the Canadian Wheat Board prepared to disburse adjusting payments which made this 20-cent increase retro-active to Aug. 1, 1945. Further strength was injected into livestock prices with the lifting of export controls in August, 1948, which since September, 1942, had embargoed Canadian shipments into the United States of beef cattle and calves and beef and calf products.

Payments made under the provisions of the Prairie Farm Assistance Act, are not included in the totals in Table 3 for "Cash Income from Farm Products" but are included in the grand totals in the year in which payment is made under the heading "Supplementary payments".

### CASH INCOME FROM THE SALE OF FARM PRODUCTS



† Payments under the Wheat Acreage Reduction Act, the Prairie Farm Assistance and the Prairie Farm Income Act.

### 3.—Cash Income from the Sale of Farm Products, by Sources, 1947 and 1948

NOTE.—Figures for years prior to 1947 will be found in corresponding tables in previous editions of the Year Book.

Item	1947	1948 <sup>1</sup>	Item	1947	1948 <sup>1</sup>
	\$'000	\$'000		\$'000	\$'000
Grains, Seeds and Hay—			Live Stock—		
Wheat.....	346,876	401,737	Cattle and calves.....	235,284	433,695
Wheat Participation Certificates.....	73,822	158,407	Sheep and lambs.....	13,057	14,958
Oats.....	62,540	54,443	Hogs.....	240,409	300,880
Barley.....	66,741	59,126	Horses.....	7,639	2
Barley Adjustment Payment	5,299	3	Poultry.....	58,821	52,648
Oats and Barley Equalization and Adjustment Payment..	—	15,499	Totals, Live Stock.....	555,210	802,181
Rye.....	32,109	19,089	Dairy products.....	325,512	389,598
Flax.....	45,646	55,936	Fruits.....	46,292	43,518
Flaxseed Adjustment Payment.....	—	4,684	Other Principal Farm Products—		
Corn.....	6,255	4,215	Eggs.....	112,748	128,454
Clover and grass seed.....	8,826	17,387	Wool.....	2,573	2,141
Hay and clover.....	5,493	6,005	Honey.....	7,996	7,989
Totals, Grains, Seeds and Hay..	653,607	796,528	Maple products.....	9,544	5,775
Vegetables and Other Field Crops—			Totals, Other Principal Farm Products.....	132,861	144,359
Potatoes.....	41,503	51,283	Miscellaneous farm products..	33,813	45,165
Vegetables.....	50,051	55,478	Forest products sold off farms	55,351	63,097
Sugar beets.....	8,833	9,286	Fur farming.....	11,723	9,699
Tobacco.....	46,738	38,343	<b>Totals, Cash Income from Farm Products.....</b>	<b>1,962,276</b>	<b>2,449,865</b>
Fibre flax.....	782	1,330	Supplementary payments <sup>4</sup> ....	11,577	20,746
Totals, Vegetables and Other Field Crops.....	147,907	155,720	<b>Totals, Cash Income.....</b>	<b>1,973,853</b>	<b>2,470,611</b>

<sup>1</sup> Subject to revision.

<sup>2</sup> Included in Miscellaneous.

<sup>3</sup> Included in Oats and Barley

Equalization and Adjustment Payment.

<sup>4</sup> Includes payments made under the Wheat Acreage Reduction Program, the Prairie Farm Assistance Act, and the Prairie Farm Income Order; other Government subsidies have been included in cash income from individual commodities.

### 4.—Cash Income from the Sale of Farm Products, by Provinces, for Specified Years, 1930-48

NOTE.—Figures for years prior to 1930 will be found in corresponding tables of previous editions of the Year Book.

Year	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
	\$'000	\$'000	\$'000	\$'000	\$'000
1930.....	8,375	16,484	13,495	86,584	217,963
1935.....	5,175	15,427	10,942	67,831	155,160
1940.....	7,288	14,913	15,729	115,656	222,420
1941.....	7,753	18,300	18,632	142,754	277,938
1942.....	11,255	21,481	24,962	172,912	356,635
1943.....	14,086	25,430	31,148	198,356	386,137
1944.....	13,734	28,003	33,116	222,562	404,802
1945.....	16,468	27,274	35,604	236,390	453,275
1946.....	17,109	34,356	35,972	256,465	479,705
1947.....	17,803	32,186	38,451	285,139	541,274
1948 <sup>1</sup> .....	22,505	36,626	44,905	352,153	668,353
	Manitoba	Saskatchewan	Alberta	British Columbia	Total
	\$'000	\$'000	\$'000	\$'000	\$'000
1930.....	48,351	122,398	95,514	31,381	640,545
1935.....	36,185	108,143	97,769	22,831	519,463
1940.....	64,529	150,861	126,627	30,208	748,231
1941.....	82,354	161,754	146,937	39,949	896,371
1942.....	103,712	195,584	168,051	44,624	1,099,216
1943.....	146,145	327,670	220,469	58,019	1,407,460
1944.....	176,800	543,690	338,101	68,136	1,828,949
1945.....	153,182	409,618	287,922	75,006	1,694,739
1946.....	167,253	387,589	282,187	82,150	1,742,786
1947.....	181,390	429,474	344,006	92,553	1,962,276
1948 <sup>1</sup> .....	242,882	520,563	448,997	101,144	2,449,865 <sup>2</sup>

<sup>1</sup> Subject to revision.

<sup>2</sup> Includes in total only the adjustment payments made by grain companies on oats and barley delivered by western producers during the period Aug. 1 to Oct. 21, 1947.

**Net Farm Income.**—Preliminary estimates in 1948 indicate that the net income of Canadian farm operators from farming operations totalled \$1,693,315,000, the highest net income figure recorded since the publication of comparable statistics from 1938. Revised net farm income figures for 1946 and 1947 are \$1,161,395,000 and \$1,234,909,000, respectively. Net farm income rose to an unprecedented level in 1948 and also established an all-time record for farm cash income from the sale of farm products. Increases were also shown in the value of home consumed farm produce. While the decrease in the value of the year-end change of farm-held live-stock inventories more than offset some increase in the value of year-end changes of farm-held grain inventories in 1948, it was insufficient to offset the gains in cash income and income in kind so that gross income set a record.

During 1948 farm operating expenses continued to rise and increased to \$1,083,556,000 in 1948, a gain of \$115,184,000 or nearly 12 p.c. over those of 1947. Gains were registered for nearly all expense items, the most significant of which occurred in the case of live-stock feeds which increased by approximately \$45,000,000 or about 19 p.c. compared with the previous year.

#### 5.—Net Income of Farm Operators from Farming Operations, 1947 and 1948<sup>1</sup>

Item	1947	1948
	\$'000	\$'000
1. Cash income from sale of farm products.....	1,962,276	2,449,865
2. Income in kind.....	340,090	371,363
3. Value of changes in inventory.....	—110,662	—65,103
4. Gross income (Items 1+2+3).....	2,191,704	2,756,125
5. Operating expenses.....	864,474	971,542
6. Depreciation charges.....	103,898	112,014
7. Total operating and depreciation (Items 5+6).....	968,372	1,083,556
8. Net income, excluding supplementary payments (Items 4—7).....	1,223,332	1,672,569
9. Supplementary payments.....	11,577	20,746
10. Net income of farm operators from farming operations (Items 8+9).....	1,234,909	1,693,315

<sup>1</sup> Includes estimated rental value of farm homes and supplementary payments made under the provisions of the Prairie Farm Assistance Act and small belated payments made under the provisions of the Prairie Farm Income Scheme and the Wheat Acreage Reduction Program.

#### 6.—Net Income of Farm Operators from Farming Operations, by Provinces, 1946-48<sup>1</sup>

Province	1946	1947	1948
	\$'000	\$'000	\$'000
Prince Edward Island.....	10,356	10,110	14,311
Nova Scotia.....	23,313	17,204	20,664
New Brunswick.....	28,626	28,399	33,779
Quebec.....	200,562	190,342	259,546
Ontario.....	338,987	350,338	447,257
Manitoba.....	105,672	114,569	178,740
Saskatchewan.....	220,684	259,844	370,016
Alberta.....	182,175	209,113	301,836
British Columbia.....	51,020	54,990	55,429
<b>Totals.....</b>	<b>1,161,395</b>	<b>1,234,909</b>	<b>1,693,315<sup>2</sup></b>

<sup>1</sup> Includes estimated rental value of farm homes and supplementary payments made under the provisions of the Prairie Farm Assistance Act and small belated payments made under the provisions of the Prairie Farm Income Scheme and the Wheat Acreage Reduction Program.

<sup>2</sup> Total includes some coarse grain adjustment payments not included in provincial totals.



### Subsection 2.—Value of Agricultural Production and of Farm Capital

Publication of the series formerly known as "Gross and Net Values of Agricultural Production" has been discontinued. These series contained duplications and, as a result, were not comparable with value of production estimates for other industries. Work is now under way on new series which will replace those previously published.

**Value of Farm Capital.**—The items included in the term "farm capital" as used in Table 7 are: lands and buildings; implements and machinery, including motor-trucks and automobiles; and live stock, including poultry and animals on fur farms. The value of lands and buildings for intercensal years is based on the value of occupied farm lands reported annually by crop correspondents; annual values of farm implements and machinery are estimated on the basis of sales reported each year.

#### 7.—Current Value of Farm Capital, by Provinces, 1946 and 1947

NOTE.—Figures for years prior to 1946 will be found in corresponding tables in previous editions of the Year Book.

Province	1946*				1947			
	Lands and Buildings	Implements and Machinery	Live Stock <sup>1</sup>	Total	Lands and Buildings	Implements and Machinery	Live Stock <sup>1</sup>	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
P. E. Island.....	42,471	6,041	14,180	62,692	47,525	6,569	14,356	68,450
Nova Scotia.....	89,115	11,304	26,791	127,210	97,581	12,501	28,552	138,634
New Brunswick....	90,466	11,502	25,899	127,867	102,046	12,350	27,525	141,921
Quebec.....	641,543	85,528	247,570	974,641	663,355	90,355	264,528	1,018,238
Ontario.....	1,097,418	171,587	401,584	1,670,589	1,190,698	184,286	418,208	1,793,192
Manitoba.....	338,502	94,394	80,828	513,724	365,582	96,586	92,246	554,414
Saskatchewan.....	882,140	223,463	146,393	1,251,996	974,765	223,648	165,654	1,364,067
Alberta.....	654,054	163,310	164,379	981,743	778,324	164,491	187,905	1,130,720
British Columbia..	133,305	17,131	41,107	191,543	143,436	19,345	43,652	206,433
<b>Totals.....</b>	<b>3,969,014</b>	<b>784,260</b>	<b>1,148,731</b>	<b>5,902,005</b>	<b>4,363,312</b>	<b>810,131</b>	<b>1,242,626</b>	<b>6,416,069</b>

<sup>1</sup> Includes poultry and animals on fur farms.

**Average Values of Farm Lands.**—The estimated average value of occupied farm land in Canada for 1948 is reported at \$39 per acre. This represents an increase of 11 p.c. over the average value indicated in 1947 and an increase of 56 p.c. over the 1939 average. The total average is determined by weighting the provincial averages by the area of occupied farm land in each province according to the latest census figures available. The upward trend in farm land values from pre-war levels reflects, at least in part, the relative changes which have occurred in the price levels of farm products and of the things which farmers buy. This is illustrated by the fact that the Bureau's index of farm prices of agricultural products for 1948 was 152.5 p.c. above the 1935-39 level, while for the same year the index of prices of commodities and services used by farmers had advanced 83.3 p.c. from the 1935-39 base-period level.



**8.—Average Values per Acre of Occupied Farm Lands<sup>1</sup> for Specified Years, 1910-48**

Province	1910	1920	1927	1929	1932	1933	1934	1935	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
P.E.I.....	31	49	41	43	31	32	34	31	36	35	32	34	37	37	41	43	42	47	51
N.S.....	25	43	37	36	28	26	27	31	29	33	28	31	33	35	41	41	42	46	48
N.B.....	19	35	30	35	24	24	24	25	27	29	24	25	30	33	40	40	39	44	44
Que.....	43	70	57	55	37	36	34	41	40	44	44	50	55	58	58	57	59	61	63
Ont.....	48	70	65	60	38	38	41	42	45	46	46	45	48	56	58	57	59	64	68
Man.....	29	39	27	26	16	16	17	17	16	17	16	17	18	19	20	21	25	27	34
Sask.....	22	32	26	25	16	16	16	17	15	15	15	14	15	15	17	18	19	21	24
Alta.....	24	32	26	28	17	16	16	16	15	16	16	17	18	19	20	21	25	31	31
B.C.....	74	175	89	90	65	63	60	58	60	60	58	60	62	62	64	67	70	75	79
<b>Totals.....</b>	<b>33</b>	<b>48</b>	<b>38</b>	<b>37</b>	<b>24</b>	<b>24</b>	<b>23</b>	<b>24</b>	<b>24</b>	<b>25</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>28</b>	<b>30</b>	<b>30</b>	<b>32</b>	<b>35</b>	<b>39</b>

<sup>1</sup> Includes unimproved lands and buildings.**Subsection 3.—Index Numbers of Farm Prices and Production**

In August, 1948, the index numbers of farm prices of agricultural products established an all-time high of 263·9 (1935-39=100). Since that time the movement of this index has been generally downward and in December it stood at 259·7. The annual average for the year, 252·5, was the highest on record. Table 9 shows the trend over the period 1939-48.

**9.—Average Index Numbers of Farm Prices of Agricultural Products, by Provinces, 1939-46, and by Months, 1947 and 1948**

(1935-39=100)

NOTE.—A description of this index, its coverage and the methods used will be found in the "Quarterly Bulletin of Agricultural Statistics" for October-December, 1946.

Year and Month	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
<b>1939 Average.....</b>	<b>104·6</b>	<b>107·6</b>	<b>111·4</b>	<b>100·4</b>	<b>99·2</b>	<b>85·6</b>	<b>79·9</b>	<b>84·9</b>	<b>98·8</b>	<b>91·8</b>
<b>1940 Average.....</b>	<b>101·6</b>	<b>99·6</b>	<b>110·1</b>	<b>103·7</b>	<b>104·2</b>	<b>92·8</b>	<b>86·5</b>	<b>90·6</b>	<b>103·6</b>	<b>96·8</b>
<b>1941 Average.....</b>	<b>105·2</b>	<b>117·1</b>	<b>115·5</b>	<b>127·4</b>	<b>120·2</b>	<b>103·7</b>	<b>93·8</b>	<b>102·8</b>	<b>114·5</b>	<b>110·2</b>
<b>1942 Average.....</b>	<b>156·2</b>	<b>144·1</b>	<b>160·4</b>	<b>153·4</b>	<b>147·0</b>	<b>122·2</b>	<b>110·5</b>	<b>121·7</b>	<b>140·6</b>	<b>133·1</b>
<b>1943 Average.....</b>	<b>190·3</b>	<b>169·1</b>	<b>181·4</b>	<b>172·6</b>	<b>165·0</b>	<b>151·3</b>	<b>139·9</b>	<b>149·9</b>	<b>175·9</b>	<b>157·8</b>
<b>1944 Average.....</b>	<b>172·7</b>	<b>173·3</b>	<b>171·9</b>	<b>171·7</b>	<b>169·1</b>	<b>173·1</b>	<b>171·4</b>	<b>176·9</b>	<b>179·7</b>	<b>172·4</b>
<b>1945 Average.....</b>	<b>196·7</b>	<b>180·8</b>	<b>195·3</b>	<b>179·5</b>	<b>174·6</b>	<b>186·3</b>	<b>189·4</b>	<b>193·4</b>	<b>187·9</b>	<b>184·2</b>
<b>1946 Average.....</b>	<b>194·2</b>	<b>191·1</b>	<b>207·7</b>	<b>196·9</b>	<b>187·9</b>	<b>204·3</b>	<b>209·5</b>	<b>213·2</b>	<b>199·0</b>	<b>200·8</b>
<b>1947—</b>										
January.....	155·8	178·9	179·6	206·6	190·0	210·2	212·1	215·4	199·8	202·8
February.....	155·2	178·1	180·1	205·7	189·8	210·1	213·2	218·2	198·1	203·3
March.....	165·4	177·6	184·3	206·1	192·3	213·5	215·4	221·2	198·6	205·7
April.....	166·2	178·9	182·1	204·3	191·0	216·0	216·2	223·8	200·9	206·0
May.....	168·4	179·7	191·7	205·6	194·9	217·3	217·5	225·2	201·2	208·3
June.....	175·6	183·1	195·8	209·0	202·2	219·1	218·3	225·5	202·6	211·5
July.....	179·9	185·7	197·2	210·8	202·8	217·9	217·2	224·8	209·2	211·9
August.....	211·0	196·0	215·8	214·0	206·0	225·6	220·2	226·8	208·7	215·8
September.....	196·6	184·7	211·0	222·2	208·7	228·3	222·2	231·6	213·8	218·8
October.....	183·3	184·7	206·4	223·6	210·3	227·0	221·3	228·5	214·7	218·4
November.....	194·8	189·7	223·6	225·8	213·5	228·8	221·5	229·1	216·1	220·6
December.....	211·8	198·0	227·8	230·6	223·9	236·1	224·9	231·9	218·3	226·7
<b>1947 Average.....</b>	<b>180·3</b>	<b>184·6</b>	<b>199·6</b>	<b>213·7</b>	<b>202·1</b>	<b>220·8</b>	<b>218·3</b>	<b>225·2</b>	<b>206·8</b>	<b>212·5</b>
<b>1948—</b>										
January.....	231·6	202·7	239·7	253·1	239·6	249·2	233·5	244·8	224·9	240·3
February.....	229·4	202·3	243·5	257·2	241·1	244·5	231·5	243·6	221·2	240·0
March.....	233·8	206·4	242·3	257·7	240·3	243·9	232·7	244·3	220·9	240·3
April.....	240·1	208·7	251·1	257·4	242·5	246·7	234·7	247·2	225·5	242·6
May.....	279·1	214·7	266·3	263·2	246·7	252·4	237·9	251·2	228·7	247·5
June.....	303·2	223·1	288·6	266·3	257·7	242·1	258·0	233·0	257·4	
July.....	288·3	231·7	313·9	270·6	264·8	259·3	242·4	260·5	244·3	259·2
August.....	258·2	231·0	267·0	274·0	278·6	258·6	243·9	266·0	250·2	263·9
September.....	204·3	215·7	226·0	269·8	274·4	261·3	244·2	269·6	250·3	261·5
October.....	195·7	206·9	222·1	271·4	274·5	259·1	242·5	266·1	252·0	260·1
November.....	196·6	205·4	223·4	272·0	270·9	260·8	241·2	259·1	254·3	257·8
December.....	194·1	208·5	222·7	273·9	271·1	261·3	245·1	263·5	251·2	259·7
<b>1948 Average.....</b>	<b>237·9</b>	<b>213·1</b>	<b>250·6</b>	<b>265·6</b>	<b>259·2</b>	<b>254·6</b>	<b>239·3</b>	<b>256·2</b>	<b>238·0</b>	<b>252·5</b>

The Dominion Bureau of Statistics in 1949 issued for the first time the index numbers of physical volume of agricultural production. In keeping with other Bureau indexes the base period for the construction of this index is the five-year period 1935 to 1939 inclusive. The index is constructed in such a manner that it represents a measure of "net farm production". This is achieved by removing duplication, e.g., when feed grains credited to field crops production also appear in the various forms of live stock and live-stock products.

The high point of the index, 164.2, was reached in 1942. In 1948 it stood at 125.2 as against 115.8 in 1947.

#### 10.—Index Numbers of Physical Volume of Agricultural Production in Canada, by Provinces, 1935-48

(1935-39=100)

NOTE.—For a description of this index, methods and coverage, see Dominion Bureau of Statistics "Quarterly Bulletin of Agricultural Statistics" for July-September, 1949.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
1935.....	90.5	99.2	93.7	93.6	98.7	77.2	106.9	87.3	91.2	95.2
1936.....	102.2	98.2	105.1	99.3	90.2	66.8	83.9	71.0	94.8	85.1
1937.....	99.6	104.4	105.5	97.6	102.1	115.0	31.1	81.1	101.1	83.7
1938.....	102.1	100.5	94.5	97.6	101.1	113.8	103.1	129.1	102.5	107.4
1939.....	105.6	97.7	101.1	111.9	108.0	127.2	175.0	131.5	110.4	128.7
1940.....	103.9	90.2	108.2	111.8	103.8	134.9	165.1	152.0	115.5	130.1
1941.....	90.6	91.3	101.9	106.2	107.4	133.9	110.1	100.9	113.4	108.7
1942.....	121.9	88.5	104.0	121.7	125.0	174.2	247.9	184.2	99.9	164.2
1943.....	102.7	89.6	133.2	112.4	89.4	152.2	138.1	104.6	114.7	113.7
1944.....	119.2	107.3	136.8	131.1	114.0	145.1	196.4	125.2	140.0	140.4
1945.....	121.3	80.7	106.7	100.7	107.6	116.9	129.3	97.6	131.1	110.9
1946.....	123.6	100.3	119.6	112.2	117.6	139.1	138.7	123.6	151.9	125.8
1947.....	129.1	87.3	119.2	102.5	107.0	121.5	128.3	116.1	145.6	115.8
1948.....	134.7	87.8	124.4	122.6	117.8	144.1	132.2	120.0	144.1	125.2

#### Subsection 4.—Acreages, Yields and Values of Field Crops

The post-war world wheat shortage was relieved somewhat during 1948. In Western Canada wheat farmers were assured of a minimum price of \$1.55 per bushel, basis No. 1 Northern in store Fort William-Port Arthur, in addition to payments accruing from the five-year pool operated by the Canadian Wheat Board. Despite adverse weather during the spring seeding season, the acreage seeded to wheat was 24,100,000 acres in 1948 which was only slightly below the 1947 level of 24,300,000 acres. Fortunately, growing conditions following the very late spring proved favourable and fairly satisfactory crops were harvested in Western Canada. Production in 1948 of all major field crops was well above that of 1947.

The acreage seeded to oats in 1948 was slightly above that of 1947 but the barley acreage at 6,500,000 was nearly 1,000,000 acres below the 1947 seedings of this crop. Reflecting the world-wide shortage of bread grains which prevailed up to harvest time in 1948, the price for rye had risen to high levels with the result that Canadian rye growers almost doubled their seedings in the spring of 1948. The acreage devoted to flaxseed also was increased, reaching a near-record total of nearly 2,000,000 acres.

Canada's 1948 wheat production amounted to 393,300,000 bu. as compared with 341,800,000 bu. in 1947. Production of oats increased from 278,700,000 bu. in 1947 to 358,800,000 bu. in 1948, an increase of almost 29 p.c. The decrease in total acreage in barley was offset by a much higher yield in 1948, production amounting to 155,000,000 bu. as against 141,400,000 in 1947. The 1948 rye crop totalled 25,300,000 bu. while the production of flax amounted to 17,400,000 bu.

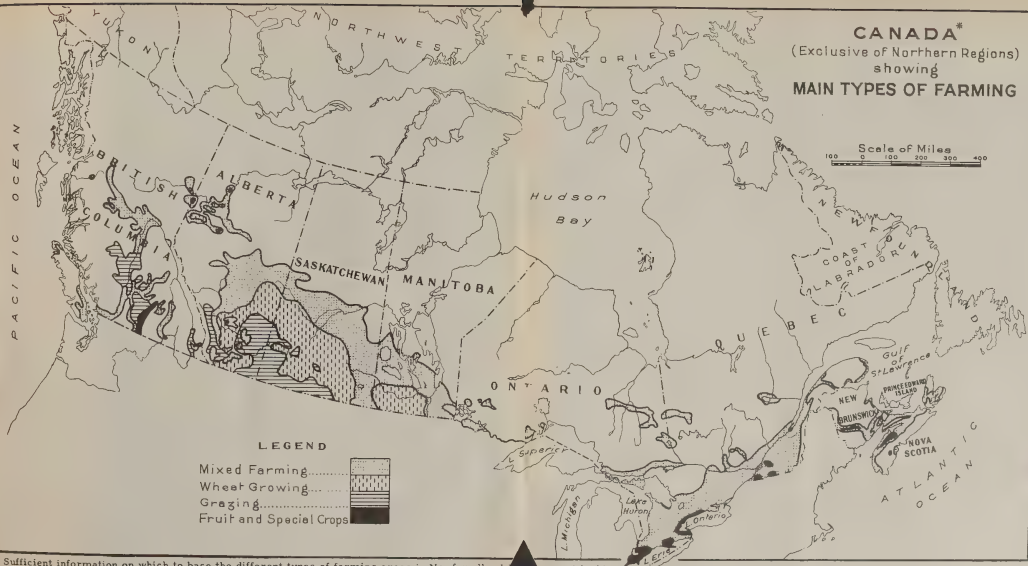
**CANADA\***  
(Exclusive of Northern Regions)  
showing  
**MAIN TYPES OF FARMING**

PACIFIC OCEAN

Scale of Miles  
0 100 200 300 400

**LEGEND**

Mixed Farming.....  
Wheat Growing.....  
Grazing.....  
Fruit and Special Crops.....



\* Sufficient information on which to base the different types of farming areas in Newfoundland is present lacking.





The gross farm value of all major field crops produced in 1948 on Canadian farms amounted to \$1,673,800,000, an all-time record for the series which was begun 41 years ago. The gross farm value of Canadian field crops in 1948 was approximately 9 p.c. higher than the 1947 value of \$1,531,000,000.

The values per unit assigned to each 1948 crop in Table 12 of this Subsection represent average prices from Aug. 1, 1948 to Jan. 31, 1949. Total values of crops in this table are gross values and do not represent cash income received from sales.

### 11.—Acreages and Values of Field Crops, by Provinces, 1941-42 and 1944-48

NOTE.—Some of the figures in this table, particularly the values, have been revised since the publication of the 1948-49 Year Book.

Province	1941	1942	1944	1945	1946	1947	1948
ACREAGES							
	'000	'000	'000	'000	'000	'000	'000
Prince Edward Island.....	466	476	467	467	476	485	487
Nova Scotia.....	510	519	555	560	547	544	524
New Brunswick.....	871	933	993	984	955	948	938
Quebec.....	6,380	6,600	6,803	6,759	6,505	6,390	6,370
Ontario.....	9,095	9,220	8,535	8,388	8,272	8,114	9,139
Manitoba.....	6,413	6,708	7,284	7,100	6,404	6,807	7,011
Saskatchewan.....	19,650	22,182	23,476	23,472	22,255	22,892	22,658
Alberta.....	12,885	13,626	13,991	14,474	13,637	13,967	13,498
British Columbia.....	518	545	569	578	591	627	593
<b>Totals, Acreages.....</b>	<b>56,788</b>	<b>60,809</b>	<b>62,673</b>	<b>62,782</b>	<b>59,642</b>	<b>60,774</b>	<b>61,218</b>
VALUES							
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Prince Edward Island.....	11,098	14,406	18,248	18,975	16,273	23,270	22,748
Nova Scotia.....	15,343	16,473	20,598	21,619	21,284	22,430	23,223
New Brunswick.....	26,806	30,320	37,978	37,251	32,471	44,178	36,504
Quebec.....	131,407	144,796	162,455	158,188	138,981	170,138	190,390
Ontario.....	181,479	219,910	219,888	233,480	249,587	282,239	369,349
Manitoba.....	76,442	121,365	158,030	150,372	172,887	177,388	226,868
Saskatchewan.....	136,162	403,024	492,279	393,875	437,130	439,602	435,173
Alberta.....	111,634	253,197	254,216	231,483	325,659	338,778	336,218
British Columbia.....	14,390	18,451	23,200	25,704	30,145	33,023	33,293
<b>Totals, Values.....</b>	<b>704,761</b>	<b>1,221,942</b>	<b>1,386,892</b>	<b>1,270,947</b>	<b>1,424,417</b>	<b>1,531,046</b>	<b>1,673,766</b>

### 12.—Acreages, Yields and Values of Principal Field Crops Grown in Canada

NOTE.—Comparative figures for Canada as a whole for earlier years are given in the corresponding tables of previous editions of the Year Book. For a record of certain figures of acreage, production and value, see Statistical Summary of the Progress of Canada at the beginning of this volume. For the majority of crops, the long-time average covers the years 1908-40. Figures for 1948 are preliminary and therefore subject to revision.

#### SUMMARY, SHOWING YIELDS AND PRICES, 1946-48, WITH LONG-TIME AVERAGES

Crop and Year	Area	Yield per Acre	Total Production	Average Price	Total Value	Crop and Year	Area	Yield per Acre	Total Production	Average Price	Total Value
	'000 acres	bu.	'000 bu.	\$ per bu.	\$'000		'000 acres	bu.	'000 bu.	\$ per bu.	\$'000
Wheat—Long-time average..	19,904	15.6	310,021	0.87	269,290	Barley—Long-time average..	3,170	23.3	73,861	0.51	37,968
1946.....	24,453	16.9	413,725	1.53	631,079	1946.....	6,259	23.8	148,887	0.77	114,670
1947.....	24,260	14.1	341,758	1.54	526,740	1947.....	7,465	18.9	141,372	1.10	155,759
1948.....	24,106	16.3	393,345	1.59	624,160	1948.....	6,495	23.9	155,018	0.94	145,512
Oats—Long-time average..	12,663	30.3	383,158	0.41	157,018	Rye—Long-time average..	694	13.7	9,503	0.67	6,389
1946.....	12,075	30.7	371,069	0.58	213,786	1946.....	715	12.3	8,811	2.23	19,651
1947.....	11,049	25.2	278,670	0.81	226,947	1947.....	1,156	11.4	13,217	3.29	43,517
1948.....	11,201	32.0	358,807	0.71	253,915	1948.....	2,103	12.0	25,340	1.38	34,904

## 12.—Acreages, Yields and Values of Principal Field Crops Grown in Canada—continued

SUMMARY, SHOWING YIELDS AND PRICES, 1946-48 WITH LONG-TIME AVERAGES

Crop and Year	Area	Yield per Acre	Total Production	Average Price	Total Value	Crop and Year	Area	Yield per Acre	Total Production	Average Price	Total Value
	'000 acres	bu.	'000 bu.	\$ per bu.	\$'000		'000 acres	ton	'000 ton	\$ per ton	\$'000
Buckwheat—Long-time average..	400	22.0	8,788	0.81	7,159	Hay and Clover—					
1946.....	218	22.4	4,881	0.98	4,789	Long-time average..	9,168	1.5	13,577	11.62	157,765
1947 <sup>r</sup> .....	290	17.9	5,187	1.17	6,075	1946.....	9,883	1.5	14,373	12.80	183,974
1948.....	186	21.6	4,031	1.26	5,090	1947 <sup>r</sup> .....	10,202	1.6	16,193	15.51	251,154
Flaxseed—Long-time average..	679	8.3	5,612	1.58	8,855	1948.....	9,748	1.7	16,073	15.45	248,346
1946.....	841	7.6	6,403	2.99	19,173	Alfalfa—					
1947 <sup>r</sup> .....	1,571	7.8	12,241	5.24	64,135	Long-time average..	502	2.4	1,207	11.06	13,349
1948.....	1,935	9.0	17,353	3.80	65,943	1946.....	1,263	2.2	2,732	13.70	37,422
Potatoes—Long-time average..	561	86.0	48,242	1.06	50,950	1947 <sup>r</sup> .....	1,135	2.3	2,560	15.22	38,965
1946.....	521	92.0	47,963	1.72	82,721	1948.....	1,317	2.3	3,022	16.60	50,154
1947 <sup>r</sup> .....	497	91.0	45,114	2.20	99,362						
1948.....	508	109.0	55,260	1.49	82,445						

DETAILS, BY PROVINCES, 1947-48, WITH FIVE-YEAR AVERAGES, 1942-46

Province and Field Crop	Year	Area	Total Production	Gross Farm Value	Province and Field Crop	Year	Area	Total Production	Gross Farm Value
		'000 acres	'000 bu.	\$'000			'000 acres	'000 bu.	\$'000
<b>Canada—</b>					<b>Canada—con.</b>				
Fall wheat...Av.	1942-46	649	18,782	20,209	Beans, dry...Av.	1942-46	91	1,452	3,633
	1947	712	17,736	25,185 <sup>r</sup>		1947	97	1,446 <sup>r</sup>	7,721 <sup>r</sup>
	1948	859	26,013	53,847		1948	92	1,641	6,837
Spring wheat...Av.	1942-46	21,268	379,221	456,415	Soybeans...Av.	1942-46	43	801	1,562
	1947	23,548	324,022 <sup>r</sup>	501,555 <sup>r</sup>		1947 <sup>r</sup>	61	1,110	3,397
	1948	23,247	367,332	570,313		1948	94	1,824	4,195
All wheat...Av.	1942-46	21,917	398,003	476,624	Buckwheat...Av.	1942-46	252	5,427	4,559
	1947	24,260	341,758 <sup>r</sup>	526,740 <sup>r</sup>		1947	290	5,187	6,075
	1948	24,106	393,345	624,160		1948	186	4,031	5,090
Oats.....Av.	1942-46	13,995	477,255	243,261	Mixed grains...Av.	1942-46	1,487	52,332	31,681
	1947	11,049	278,670	226,947 <sup>r</sup>		1947	1,150	34,929	32,635
	1948	11,201	358,807	253,915		1948	1,542	61,947	60,318
Barley.....Av.	1942-46	7,253	195,215	125,617	Flaxseed....Av.	1942-46	1,532	11,313	26,192
	1947	7,465	141,372	155,759 <sup>r</sup>		1947	1,571	12,241	64,135 <sup>r</sup>
	1948	6,495	155,018	145,512		1948	1,935	17,353	65,943
Fall rye....Av.	1942-46	518	7,722	7,617	Shelled corn...Av.	1942-46	269	10,975	10,345
	1947	841	10,234	33,568 <sup>r</sup>		1947	176	6,682	12,506 <sup>r</sup>
	1948	1,606	19,876	27,479		1948	252	12,417	16,369
Spring rye...Av.	1942-46	235	3,300	3,406	Potatoes....Av.	1942-46	520	43,957	76,260
	1947	315	2,983	9,949 <sup>r</sup>		1947	497	45,114	99,362 <sup>r</sup>
	1948	497	5,464	7,425		1948	508	55,260	82,445
All rye.....Av.	1942-46	753	11,022	11,023	Turnips, etc....Av.	1942-46	148	30,797	21,285
	1947	1,156	13,217	43,517 <sup>r</sup>		1947	114	21,019	19,392
	1948	2,103	25,340	34,904		1948	110	22,807	20,478
Peas, dry...Av.	1942-46	102	1,688	4,381					
	1947	128	1,788	5,138					
	1948	82	1,477	4,328					

**12.—Acreages, Yields and Values of Principal Field Crops Grown in Canada—continued**  
**DETAILS, BY PROVINCES, 1947-48, WITH FIVE-YEAR AVERAGES, 1942-46—con.**

Province and Field Crop	Year	Area	Total Production	Gross Farm Value	Province and Field Crop	Year	Area	Total Production	Gross Farm Value
		'000 acres	'000 tons	\$'000			'000 acres	'000 bu.	\$'000
<b>Canada—conc.</b>					<b>Nova Scotia—</b>				
Hay and clover.....Av.	1942-46	9,951	16,098	191,065	Spring wheat	1942-46	2	33	34
	1947	10,202	16,193	251,154 <sup>r</sup>	Av.	1947	1	25	34
	1948	9,748	16,073	248,346		1948	1	32	58
Alfalfa.....Av.	1942-46	1,472	3,581	41,205	Oats.....Av.	1942-46	69	2,332	1,616
	1947	1,135	2,560	38,965		1947	70	2,250	2,048 <sup>r</sup>
	1948	1,317	3,022	50,154		1948	68	2,452	2,256
Fodder corn					Barley.....Av.	1942-46	11	283	253
Av.	1942-46	477	4,100	16,777		1947	7 <sup>r</sup>	190	215
	1947	475	3,867	19,654		1948	7	216	264
	1948	539	5,051	28,729	Buckwheat.Av.	1942-46	2	53	52
Grain hay..Av.	1942-46	838	1,350	7,752		1947	2	27	34
	1947	889	1,350	9,264		1948	1	27	36
	1948	848	1,204	12,880	Mixed grains				
Sugar beets.Av.	1942-46	60	628	6,636	Av.	1942-46	6	178	138
	1947	59	606	8,685 <sup>r</sup>		1947	5	137	148
	1948	60	629	9,163		1948	6	198	202
			'000 bu.				'000 cwt.		
<b>P. E. Island—</b>					Potatoes....Av.	1942-46	23	2,337	4,330
Spring wheat						1947	22 <sup>r</sup>	1,828	4,188 <sup>r</sup>
Av.	1942-46	6	119	127		1948	21	2,772	3,881
	1947	5	97	146	Turnips, etc.				
	1948	6	129	227	Av.	1942-46	13	3,417	3,035
Oats.....Av.	1942-46	121	4,247	2,609		1947	10	2,010	2,010
	1947	122	4,270	3,886 <sup>r</sup>		1948	10	2,458	2,212
	1948	118	4,602	3,774			'000 tons		
Barley.....Av.	1942-46	13	377	325	Hay and clover.....Av.	1942-46	418	692	10,208
	1947	11 <sup>r</sup>	321	334		1947	426	724	13,705 <sup>r</sup>
	1948	9	291	340		1948	407	814	14,245
Buckwheat.Av.	1942-46	2	44	39	Fodder corn				
	1947	1	25	29	Av.	1942-46	1	10	53
	1948	1	22	28		1947	1	8	50
						1948	1	11	69
Mixed grains							'000 bu.		
Av.	1942-46	52	1,873	1,152	<b>New Brunswick</b>				
	1947	65	2,459	2,090	Spring wheat				
	1948	63	2,650	2,597	Av.	1942-46	3	56	69
			'000 cwt.			1947	2	46	73
Potatoes....Av.	1942-46	42	4,650	6,286		1948	3	73	137
	1947	43	5,873	10,395 <sup>r</sup>	Oats.....Av.	1942-46	199	6,717	4,419
	1948	48	6,314	6,503		1947	191	6,106	5,373 <sup>r</sup>
Turnips, etc.						1948	187	7,106	5,969
Av.	1942-46	13	3,726	2,122	Barley.....Av.	1942-46	15	467	443
	1947	12	3,300	2,475		1947	12	336	376
	1948	13	3,844	2,306		1948	11	352	426
			'000 tons		Beans, dry..Av.	1942-46	2	23	96
Hay and clover.....Av.	1942-46	223	321	4,020		1947	1	15	63
	1947	226	181	3,835 <sup>r</sup>		1948	1	19	81
	1948	228	502	6,877	Buckwheat.Av.	1942-46	20	479	484
Fodder corn						1947	15	385	493
Av.	1942-46	1	10	63		1948	15	370	496
	1947	1	10	80	Mixed grains				
	1948	1	12	96	Av.	1942-46	12	393	273
						1947	9	323	271
						1948	9	318	293

**12.—Acreages, Yields and Values of Principal Field Crops Grown in Canada—continued**  
**DETAILS, BY PROVINCES, 1947-48, WITH FIVE-YEAR AVERAGES, 1942-46—con.**

Province and Field Crop	Year	Area	Total Production	Gross Farm Value	Province and Field Crop	Year	Area	Total Production	Gross Farm Value
		'000 acres	'000 cwt.	\$'000			'000 acres	'000 tons	\$'000
<b>New Brunswick—concluded</b>					<b>Quebec—conc.</b>				
Potatoes....Av.	1942-46	62	8,798	14,037	Hay and clover....Av.	1942-46	4,129	6,027	79,610
	1947	67	9,457	19,198		1947	4,065	5,935	94,545
	1948	68	10,389	11,012		1948	4,032	5,645	95,965
Turnips, etc.					Alfalfa.....Av.	1942-46	67	158	2,301
Av.	1942-46	14	3,437	2,697		1947	72	156	2,722
	1947	11	1,927	1,638		1948	86	165	3,247
	1948	10	2,225	1,780	Fodder corn				
			'000 tons		Av.	1942-46	92	796	4,541
Hay and clover....Av.	1942-46	640	920	13,719		1947	95	713	5,276
	1947	638	893	16,565		1948	107	895	6,355
	1948	633	1,013	16,208	Sugar beets..Av.	1942-46	2	15	177
Fodder corn						1947	2	11	136
Av.	1942-46	3	24	125		1948	3	28	359
	1947	2	16	128				'000 bu.	
	1948	2	17	102	<b>Ontario—</b>				
			'000 bu.		Fall wheat...Av.	1942-46	649	18,782	20,209
<b>Quebec—</b>						1947	712	17,736	25,185
Spring wheat						1948	859	26,013	53,847
Av.	1942-46	26	470	514	Spring wheat				
	1947	22	325	507	Av.	1942-46	38	763	824
	1948	24	478	899		1947	31	563	800
Oats.....Av.	1942-46	1,636	41,144	25,694		1948	52	1,161	2,403
	1947	1,395	26,639	24,508	All wheat...Av.	1942-46	687	19,545	21,033
	1948	1,381	40,463	37,226		1947	743	18,299	25,985
Barley....Av.	1942-46	138	3,163	2,591		1948	911	27,174	56,250
	1947	157	2,885	3,491	Oats.....Av.	1942-46	1,659	62,324	34,513
	1948	144	3,896	4,636		1947	1,289	41,490	37,341
Spring rye..Av.	1942-46	10	160	149		1948	1,836	76,728	61,382
	1947	8	124	164	Barley....Av.	1942-46	312	9,986	7,003
	1948	13	220	293		1947	228	6,133	6,930
Peas, dry...Av.	1942-46	25	372	1,202		1948	226	7,778	8,556
	1947	18	211	836	Fall rye....Av.	1942-46	68	1,285	1,409
	1948	16	272	1,088		1947	75	1,444	3,697
Beans, dry..Av.	1942-46	13	212	706		1948	124	2,751	4,182
	1947	11	154	701	Peas, dry...Av.	1942-46	27	475	1,180
	1948	12	209	941		1947	43	644	1,932
Buckwheat..Av.	1942-46	83	1,696	1,497		1948	30	650	1,859
	1947	96	1,523	1,919	Beans, dry..Av.	1942-46	74	1,190	2,769
	1948	75	1,735	2,325		1947	84	1,262	6,903
Mixed grains						1948	78	1,402	5,762
Av.	1942-46	268	7,367	5,628	Soybeans...Av.	1942-46	43	801	1,562
	1947	276	5,568	5,457		1947	61	1,110	3,397
	1948	299	9,209	10,406		1948	94	1,824	4,195
Potatoes....Av.	1942-46	160	11,515	20,878	Buckwheat..Av.	1942-46	139	3,054	2,389
	1947	149	10,558	26,078		1947	174	3,192	3,543
	1948	155	14,989	21,734		1948	92	1,843	2,156
Turnips, etc.					Mixed grains				
Av.	1942-46	35	5,997	5,130	Av.	1942-46	984	37,533	21,752
	1947	25	3,453	3,798		1947	751	25,312	23,793
	1948	23	4,166	4,916		1948	1,096	47,672	45,288
			'000 cwt.		Flaxseed....Av.	1942-46	22	227	505
						1947	56	674	3,653
						1948	65	829	3,142
					Shelled corn				
					Av.	1942-46	231	10,441	9,914
						1947	166	6,430	12,153
						1948	242	12,120	15,998



## 12.—Acreages, Yields and Values of Principal Field Crops Grown in Canada—continued

DETAILS, BY PROVINCES, 1947-48, WITH FIVE-YEAR AVERAGES, 1942-46—con.

Province and Field Crop	Year	Area	Total Production	Gross Farm Value	Province and Field Crop	Year	Area	Total Production	Gross Farm Value
		'000 acres	'000 cwt.	\$'000			'000 acres	'000 bu.	\$'000
<b>Ontario—conc.</b>					<b>Manitoba—conc</b>				
Potatoes....Av.	1942-46	119	8,331	17,344	Shelled corn	1942-46	38	534	431
	1947	114	9,100	21,658 <sup>r</sup>	Av.	1947	10 <sup>r</sup>	252	353 <sup>r</sup>
	1948	115	12,222	21,389		1948	10	297	371
Turnips, etc..									
Av.	1942-46	59	12,577	6,648				'000 cwt.	
	1947	54 <sup>r</sup>	9,938	8,845					
	1948	52	9,757	8,586					
			'000 tons		Potatoes....Av.	1942-46	27	1,806	2,308
Hay and clover....Av.	1942-46	2,971	5,547	58,339		1947	24 <sup>r</sup>	1,813	3,028 <sup>r</sup>
	1947	3,363	6,154	87,941 <sup>r</sup>		1948	26	2,157	3,365
	1948	3,026	5,750	78,833	Turnips, etc.	1942-46	3	361	317
Alfalfa.....Av.	1942-46	770	2,016	22,772	Av.	1947	—	—	—
	1947	547	1,347	19,195		1948	—	—	—
	1948	732	1,823	27,855				'000 tons	
Fodder corn					Hay and clover....Av.	1942-46	390	676	4,347
Av.	1942-46	322	3,030	10,643		1947	245	440	4,743 <sup>r</sup>
	1947	348	2,973	13,022		1948	237	431	4,474
	1948	401	3,996	21,099	Alfalfa.....Av.	1942-46	203	452	4,118
Sugar beets.Av.	1942-46	17	168	1,855		1947	79	198	2,584
	1947	19	164	2,251 <sup>r</sup>		1948	75	180	2,471
	1948	18	197	2,817	Fodder corn				
			'000 bu.		Av.	1942-46	35	112	630
<b>Manitoba—</b>						1947	17	89	623
Spring wheat						1948	16	70	490
Av.	1942-46	2,146	47,820	60,986	Sugar beets.Av.	1942-46	12	100	907
	1947	2,497	42,000 <sup>r</sup>	66,360 <sup>r</sup>		1947	9	65	813 <sup>r</sup>
	1948	2,397	57,000	90,630		1948	10	80	1,127
Oats.....Av.	1942-46	1,573	59,700	30,113				'000 bu.	
	1947	1,381	39,000	30,420 <sup>r</sup>	<b>Saskatchewan—</b>				
	1948	1,491	60,000	39,000	Spring wheat				
Barley....Av.	1942-46	2,064	58,440	37,946	Av.	1942-46	12,602	213,840	257,294
	1947	1,901	34,000	37,740 <sup>r</sup>		1947	14,226	173,000	268,150 <sup>r</sup>
	1948	1,540	45,000	43,200		1948	14,389	191,000	296,050
Fall rye....Av.	1942-46	52	888	705	Oats.....Av.	1942-46	5,414	179,200	86,542
	1947	32	490	1,735 <sup>r</sup>		1947	3,983	80,000	63,200 <sup>r</sup>
	1948	94	1,625	2,210		1948	3,652	89,000	56,070
Spring rye...Av.	1942-46	15	267	220	Barley....Av.	1942-46	2,694	68,300	43,003
	1947	8	110	389 <sup>r</sup>		1947	2,780	45,000	49,950 <sup>r</sup>
	1948	21	325	442		1948	2,316	42,000	38,640
All rye....Av.	1942-46	67	1,155	925	Fall rye....Av.	1942-46	295	3,863	3,372
	1947	40	600	2,124 <sup>r</sup>		1947	537	5,400	17,928 <sup>r</sup>
	1948	115	1,950	2,652		1948	988	8,100	11,097
Peas, dry...Av.	1942-46	13	260	644	Spring rye..Av.	1942-46	155	2,182	2,317
	1947	31	437	1,049		1947	167	1,380	4,582 <sup>r</sup>
	1948	17	272	626		1948	250	2,400	3,288
Buckwheat.Av.	1942-46	6	101	98	All rye.....Av.	1942-46	450	6,045	5,689
	1947	2	35	57		1947	704	6,780	22,510 <sup>r</sup>
	1948	2	34	49		1948	1,238	10,500	14,385
Mixed grains					Peas, dry...Av.	1942-46	7	111	299
Av.	1942-46	36	1,052	609		1947	9	102	255
	1947	13	308	246		1948	2	35	79
	1948	13	373	313	Mixed grains				
Flaxseed....Av.	1942-46	248	2,468	6,102	Av.	1942-46	65	1,953	1,103
	1947	556	5,200	27,248 <sup>r</sup>		1947	6	95	70
	1948	1,062	10,000	38,100		1948	6	127	104

**12.—Acreages, Yields and Values of Principal Field Crops Grown in Canada—continued**  
**DETAILS, BY PROVINCES, 1947-48, WITH FIVE-YEAR AVERAGES, 1942-46—con.**

Province and Field Crop	Year	Area	Total Production	Gross Farm Value	Province and Field Crop	Year	Area	Total Production	Gross Farm Value		
		'000 acres	'000 bu.	\$'000			'000 acres	'000 bu.	\$'000		
Saskatchewan—concluded	Flaxseed....Av.	1942-46	1,038	6,959	15,852	Alberta—conc. Mixed grains	Av.	1942-46	58	1,719	860
		1947	700	4,200	21,966 <sup>r</sup>			1947	16	359	266
		1948	588	4,000	15,160			1948	42	1,061	796
				'000 cwt.							
	Potatoes....Av.	1942-46	42	2,471	3,409	Flaxseed....Av.	1942-46	221	1,623	3,647	
		1947	37	2,387	4,798 <sup>r</sup>		1947	257	2,150	11,180 <sup>r</sup>	
		1948	34	2,161	4,365		1948	218	2,500	9,450	
	Turnips, etc.	Av.	1942-46	4	325	317	Potatoes...Av.	1942-46	28	2,124	3,449
			1947	—	—	—		1947	24	1,960	4,077 <sup>r</sup>
			1948	—	—	—		1948	23	2,029	4,139
			'000 tons								
Hay and clover....Av.	1942-46	326	527	4,088	Turnips, etc.	Av.	1942-46	4	392	454	
	1947	314	399	5,674 <sup>r</sup>			1947	—	—	—	
	1948	302	443	6,082			1948	—	—	—	
							'000 tons				
Alfalfa.....Av.	1942-46	120	224	2,343	Hay and clover....Av.	1942-46	631	928	8,642		
	1947	126 <sup>r</sup>	171	2,859		1947	696 <sup>r</sup>	975	13,553 <sup>r</sup>		
	1948	124	232	4,030		1948	665	1,017	14,441		
Fodder corn	Av.	1942-46	9	25	171	Alfalfa.....Av.	1942-46	238	523	5,940	
		1947	6	17	170		1947	223 <sup>r</sup>	447	6,544	
		1948	7	15	208		1948	217	391	6,776	
			'000 bu.								
Alberta—Spring wheat	Av.	1942-46	6,349	113,560	133,317	Fodder corn	Av.	1942-46	9	45	259
		1947	6,634	105,000 <sup>r</sup>	160,650 <sup>r</sup>			1947	1	4	24
		1948	6,259	115,000	175,950			1948	1	2	13
Oats.....Av.	1942-46	3,248	117,760	55,768	Grain hay...Av.	1942-46	806	1,283	6,891		
	1947	2,534	75,000	57,000 <sup>r</sup>		1947	850	1,275	8,288		
	1948	2,392	75,000	45,750		1948	800	1,120	11,200		
Barley.....Av.	1942-46	1,987	53,540	33,571	Sugar beets.Av.	1942-46	29	345	3,697		
	1947	2,354	52,000	56,160 <sup>r</sup>		1947	29	366	5,485 <sup>r</sup>		
	1948	2,226	55,000	48,950		1948	29	324	4,860		
Fall rye....Av.	1942-46	103	1,688	2,131	British Columbia—Spring wheat	Av.	1942-46	96	2,560	3,250	
	1947	197	2,900	10,208 <sup>r</sup>			1947	130	2,966	4,835 <sup>r</sup>	
	1948	400	7,400	9,990			1948	116	2,459	3,959	
Spring rye..Av.	1942-46	54	661	688	Oats.....Av.	1942-46	76	3,831	1,987		
	1947	131	1,350	4,752 <sup>r</sup>		1947	84	3,915	3,171 <sup>r</sup>		
	1948	212	2,500	3,375		1948	76	3,456	2,488		
All rye.....Av.	1942-46	157	2,347	2,819	Barley.....Av.	1942-46	19	659	482		
	1947	328	4,250	14,960 <sup>r</sup>		1947	15	507	563 <sup>r</sup>		
	1948	612	9,900	13,365		1948	16	485	500		
Peas, dry...Av.	1942-46	22	303	702	Spring rye..Av.	1942-46	1	30	32		
	1947	19	222	591		1947	1	19	62		
	1948	15	207	528		1948	1	19	27		
Beans, dry..Av.	1942-46	1	10	23	Peas, dry...Av.	1942-46	8	167	354		
	1947	—	—	—		1947	8	172	475		
	1948	—	—	—		1948	2	41	148		
Beans, dry..Av.	1942-46	1	10	23	Beans, dry..Av.	1942-46	1	17	39		
	1947	—	—	—		1947	1	15	54		
	1948	—	—	—		1948	1	11	53		

**12.—Acreages, Yields and Values of Principal Field Crops Grown in Canada—concluded**  
**DETAILS, BY PROVINCES, 1947-48, WITH FIVE-YEAR AVERAGES, 1942-46—conc.**

Province and Field Crop	Year	Area	Total Production	Gross Farm Value	Province and Field Crop	Year	Area	Total Production	Gross Farm Value
		'000 acres	'000 bu.	\$'000			'000 acres	'000 tons	\$'000
<b>British Columbia—continued</b>					<b>British Columbia—concluded</b>				
Mixed grains					Hay and clover.....				
Av. 1942-46	6	264	166		Av. 1942-46	223	460	8,092	
1947	9	368	294		1947	229	492	10,593 <sup>1</sup>	
1948	8	339	319		1948	218	458	11,221	
Flaxseed....					Alfalfa.....				
Av. 1942-46	3	36	86		Av. 1942-46	74	208	3,731	
1947	2	17	88 <sup>r</sup>		1947	88	241	5,061	
1948	2	24	91		1948	83	231	5,775	
			'000 cwt.		Fodder corn				
Potatoes....					Av. 1942-46	5	48	292	
Av. 1942-46	17	1,925	4,219		1947	4	37	281	
1947	17	2,138	5,944 <sup>r</sup>		1948	3	33	297	
1948	18	2,227	6,057						
Turnips, etc.					Grain hay..				
Av. 1942-46	3	565	565		Av. 1942-46	32	67	861	
1947	2	391	626		1947	39	75	876	
1948	2	357	678		1948	48	84	1,680	

**13.—Acreages and Production of Grain in the Prairie Provinces, 1946-48**

NOTE.—Figures for years prior to 1946 will be found in corresponding tables in previous editions of the Year Book.

Kind of Grain	Acreages			Production		
	1946	1947	1948	1946	1947	1948
	'000 acres	'000 acres	'000 acres	'000 bu.	'000 bu.	'000 bu.
Wheat.....	23,731	23,357 <sup>r</sup>	23,045 <sup>1</sup>	393,000	320,000 <sup>r</sup>	363,000 <sup>1</sup>
Oats.....	8,522	7,898 <sup>r</sup>	7,535 <sup>1</sup>	247,000	194,000 <sup>r</sup>	224,000 <sup>1</sup>
Barley.....	5,797	7,035 <sup>r</sup>	6,082 <sup>1</sup>	134,000	131,000 <sup>r</sup>	142,000 <sup>1</sup>
Rye.....	641	1,072 <sup>r</sup>	1,965 <sup>1</sup>	7,278	11,630 <sup>r</sup>	22,350 <sup>1</sup>
Flaxseed.....	821	1,513 <sup>r</sup>	1,868 <sup>1</sup>	6,208	11,550 <sup>r</sup>	16,500 <sup>1</sup>

<sup>1</sup> Subject to revision.

**Stocks of Grain in Canada.**—Table 14 shows the stocks of Canadian grain on hand on July 31, for the years 1939-49, in both Canada and the United States as well as the amounts held on farms at that date. Farm stocks are given for Canada and the Prairie Provinces separately, while an additional column indicates the amounts held in country elevators in the Prairie Provinces.

## 14.—Carryover of Canadian Grain as at July 31, 1939-49

NOTE.—Figures for years prior to 1939 will be found in corresponding tables in previous editions of the Year Book.

Year ended July 31—	Total in Canada and United States	Total in Canada	In Commercial Storage in Canada	On Farms in Canada	Prairie Provinces	
					On Farms	In Country Elevators
	bu.	bu.	bu.	bu.	bu.	bu.
WHEAT						
1939.	102,910,853	94,631,948	89,949,948	4,682,000	2,805,000	7,811,988
1940.	300,473,465	272,927,932	255,641,932	17,286,000	14,250,000	57,659,694
1941.	480,129,311	448,337,801	434,383,801	13,954,000	11,500,000	217,873,891
1942.	423,752,337	404,896,791	394,450,791	10,446,000	9,200,000	133,406,134
1943.	594,626,019	579,370,626	359,163,626	190,207,000	137,000,000	226,185,096
1944.	356,531,079	338,137,557	284,266,557	53,871,000	52,850,000	136,729,502
1945.	258,072,830	238,480,041	209,830,041	28,650,000	27,000,000	62,050,936
1946.	73,600,209	73,466,209	46,263,209	27,203,000	25,841,000	14,341,575
1947.	86,141,289	86,054,623	60,066,623	25,988,000	24,487,000	17,134,906
1948.	77,710,410	77,675,758	38,513,758	39,162,000	38,000,000	14,402,528
1949.	98,715,341	98,646,847	56,223,847	42,423,000	41,000,000	14,372,583
OATS						
1939.	48,887,155	48,796,155	9,142,155	39,654,000	26,501,000	1,798,979
1940.	46,931,028	46,585,416	6,804,416	39,781,000	23,214,000	1,962,724
1941.	41,563,379	41,252,114	4,150,114	37,102,000	20,137,000	722,020
1942.	28,607,188	28,607,188	4,434,188	24,173,000	11,952,000	1,407,606
1943.	149,340,515	146,871,148	28,467,148	118,404,000	102,000,000	14,706,361
1944.	108,479,383	107,745,201	38,322,201	69,423,000	61,830,000	13,705,907
1945.	98,255,162	94,749,878	29,924,878	64,825,000	54,500,000	5,460,089
1946.	77,491,528	77,491,528	26,404,528	51,087,000	40,902,000	7,631,949
1947.	69,483,926	69,392,926	16,826,926	52,566,000	39,812,000	5,712,431
1948.	47,891,059	47,065,974	9,472,974	37,593,000	32,000,000	2,317,943
1949.	59,075,479	59,075,479	10,712,479	48,363,000	38,000,000	3,020,899
BARLEY						
1939.	12,804,186	12,784,186	5,437,486	7,346,700	5,826,000	1,085,307
1940.	12,653,875	11,502,370	4,427,370	7,075,000	5,351,000	1,113,229
1941.	10,908,001	10,425,898	3,920,898	6,505,000	4,895,000	767,478
1942.	10,821,462	10,821,462	5,709,462	5,112,000	4,194,000	924,577
1943.	69,278,502	65,922,701	24,608,701	41,314,000	40,000,000	10,350,218
1944.	45,949,269	45,671,344	22,292,344	23,379,000	22,825,000	7,534,783
1945.	28,919,181	28,253,191	10,434,191	17,819,000	17,000,000	4,258,071
1946.	29,937,099	29,832,559	15,948,559	13,884,000	13,250,000	5,996,031
1947.	28,764,387	28,764,387	12,272,387	16,492,000	15,453,000	3,519,955
1948.	31,449,460	31,153,555	13,780,555	17,373,000	17,000,000	2,220,313
1949.	28,963,875	28,851,531	10,369,531	18,482,000	18,000,000	2,298,719
RYE						
1939.	2,921,434	1,975,871	1,595,871	380,000	345,000	495,747
1940.	5,351,661	2,045,636	1,426,636	619,000	545,000	556,708
1941.	4,919,122	1,859,871	1,399,871	460,000	399,000	399,395
1942.	3,353,203	2,024,203	1,821,203	203,000	145,000	348,020
1943.	15,267,755	14,399,369	8,313,369	6,086,000	6,000,000	3,993,573
1944.	5,594,285	4,384,155	3,340,155	1,044,000	1,000,000	566,590
1945.	2,023,933	2,023,933	1,518,933	505,000	465,000	123,595
1946.	768,149	768,149	515,149	253,000	215,000	269,878
1947.	755,163	732,163	452,163	280,000	212,000	132,217
1948.	903,746	903,746	627,746	276,000	275,000	482,289
1949.	11,957,531	11,229,505	7,042,505	4,187,000	4,100,000	1,760,063
FLAXSEED						
1939.	118,822	118,822	113,922	4,900	4,800	37,786
1940.	583,307	583,307	556,507	26,800	26,500	193,684
1941.	620,313	620,313	605,313	15,000	14,000	109,667
1942.	1,027,040	1,027,040	1,005,040	22,000	19,000	51,504
1943.	3,740,121	3,740,121	3,346,121	394,000	385,000	1,228,803
1944.	3,648,642	3,648,642	2,824,642	824,000	814,000	280,819
1945.	2,932,111	2,932,111	2,178,111	754,000	754,000	321,182
1946.	1,649,218	1,649,218	1,006,218	643,000	635,000	66,880
1947.	796,918	796,918	355,918	441,000	436,000	88,474
1948.	3,371,226	3,371,226	3,076,226	295,000	295,000	604,432
1949.	10,710,680	10,710,680	10,519,680	191,000	191,000	141,113



## Subsection 5.—Live Stock

The growth of the live-stock industry in Canada from decade to decade is indicated in summary form in Table 15.

## 15.—Live Stock in Canada, Censuses of 1871-1941

Item	1871	1881	1891	1901	1911	1921	1931	1941
	No.	No.	No.	No.	No.	No.	No.	No.
Horses.....	836,743	1,059,358	1,470,572	1,577,493	2,598,958	3,610,494	3,215,431	2,845,008
All cattle.....	2,624,290	3,433,989	4,120,586	5,576,451	6,526,083	8,519,484	8,099,883	8,653,045
Milk cows.....	1,251,209	1,595,800	1,857,112	2,408,677	2,595,255	3,318,064 <sup>1</sup>	3,585,114 <sup>1</sup>	3,707,163 <sup>2</sup>
Other cattle.....	1,373,081	1,838,189	2,263,474	3,167,774	3,930,828	5,200,820	4,514,769	4,945,882
Sheep.....	3,155,509	3,048,678	2,563,781	2,510,239	2,174,300	3,203,966	3,627,116	2,839,948
Swine.....	1,366,083	1,207,619	1,733,850	2,353,828	3,634,778	3,404,730	4,774,828	6,174,309

<sup>1</sup> Cows in milk or in calf.

<sup>2</sup> Cows and heifers, two years old or over, kept mainly for milk purposes.

Live stock on farms as obtained from the census data cannot be separated from the total numbers except for the past three census years. Table 16 gives the numbers of live stock on farms for those years.

## 16.—Live Stock on Farms, Censuses of 1921, 1931 and 1941

Item	1921	1931	1941
	No.	No.	No.
Horses.....	3,451,752	3,113,909	2,788,795
All cattle.....	8,369,489	7,973,031	8,517,007
Milk cows.....	3,222,644 <sup>1</sup>	3,523,001 <sup>1</sup>	3,626,025 <sup>2</sup>
Other cattle.....	5,146,845	4,450,030	4,890,982
Sheep.....	3,200,467	3,627,116	2,839,948
Swine.....	3,324,291	4,699,831	6,081,389

<sup>1</sup> Cows in milk or in calf.

<sup>2</sup> Cows and heifers, two years old or over, kept mainly for milk purposes.

Annual estimates, based on census data, are compiled for numbers of animals on farms. The indexes in Table 17 are the estimates of live stock for the respective years expressed as percentages of the numbers on farms during the period 1935 to 1939. Table 18 gives the estimates by provinces for 1944-48 and Table 19 the average values per head of farm live stock in the same years.

## 17.—Index Numbers of Animals on Farms, 1940-48

(Average 1935-39=100)

NOTE.—Comparable figures for 1906-36 are given at pp. 211-212 of the 1945 Year Book and for 1937-39 at p. 365 of the 1948-49 edition.

Year	Horses	Milk Cows	Other Cattle	All Cattle	Sheep and Lambs	Swine
1940.....	98.1	96.5	95.8	96.1	93.6	152.4
1941.....	98.4	95.9	99.1	97.7	92.1	154.4
1942.....	99.4	97.4	106.6	102.6	103.7	180.9
1943.....	98.0	100.4	118.9	110.9	112.2	206.9
1944.....	96.6	103.9	130.0	118.7	120.9	196.5
1945.....	91.2	105.8	137.0	123.4	117.5	153.0
1946.....	77.7	98.2	120.6	110.9	95.4	124.7
1947.....	71.7	97.8	122.0	111.5	87.8	139.0
1948.....	67.2	97.9	116.9	108.6	73.0	113.3

The reduction in the number of horses has been going on steadily for a number of years with the trend towards greater mechanization in agricultural production. The total number of horses on farms in Canada was under 2,000,000 in 1948, the lowest number since 1906. The number of cattle decreased by 3 p.c. from the 1947 total but there was practically no change in the number of milk cows, the increases in Quebec, Ontario and Alberta offsetting the decreases in the other provinces. Substantial decreases took place in numbers of swine and sheep. The peak number for swine was reached in 1943 and except for a moderate recovery in 1947 the decrease has been continuous. Favourable marketing conditions during the first six months of 1948 led to a considerable liquidation of swine and the estimated numbers on farms at June 1, 1948 was 19 p.c. below the 1947 figure. The number of sheep has declined steadily since 1944 despite relatively favourable prices for both lamb and wool.

### 18.—Numbers of Farm Live Stock, by Provinces, June 1, 1944-48

NOTE.—Figures for years prior to 1944 will be found in the corresponding tables in previous editions of the Year Book.

Province and Item	1944	1945	1946	1947	1948	Province and Item	1944	1945	1946	1947	1948
	'000	'000	'000	'000	'000		'000	'000	'000	'000	'000
<b>Totals—</b>						<b>Ontario—</b>					
Horses.....	2,735	2,585	2,200	2,032	1,905	Horses.....	507	492	467	451	424
Milk cows.....	3,930	3,998	3,711	3,697	3,701	Milk cows.....	1,188	1,253	1,250	1,253	1,261
Other cattle.....	6,416	6,760	5,954	6,021	5,769	Other cattle.....	1,557	1,655	1,618	1,622	1,603
Sheep.....	3,726	3,622	2,942	2,707	2,251	Sheep.....	737	724	701	667	575
Swine.....	7,741	6,026	4,910	5,473	4,463	Swine.....	1,900	1,979	2,013	2,245	1,769
<b>P. E. Island—</b>						<b>Manitoba—</b>					
Horses.....	27	27	25	24	23	Horses.....	290	264	215	195	179
Milk cows.....	46	47	46	43	42	Milk cows.....	387	366	277	267	262
Other cattle.....	59	59	55	52	52	Other cattle.....	606	658	523	512	462
Sheep.....	58	60	55	49	43	Sheep.....	319	288	206	181	141
Swine.....	66	60	64	69	62	Swine.....	624	457	308	347	257
<b>Nova Scotia—</b>						<b>Saskatchewan—</b>					
Horses.....	36	35	34	33	32	Horses.....	819	783	570	505	463
Milk cows.....	109	109	103	98	95	Milk cows.....	529	525	399	393	387
Other cattle.....	123	117	115	105	97	Other cattle.....	1,356	1,454	1,100	1,118	1,050
Sheep.....	161	160	154	138	131	Sheep.....	531	513	335	285	253
Swine.....	69	59	49	60	48	Swine.....	1,600	1,007	523	558	396
<b>New Brunswick—</b>						<b>Alberta—</b>					
Horses.....	47	46	45	43	42	Horses.....	603	564	469	411	377
Milk cows.....	118	119	116	111	103	Milk cows.....	386	376	326	316	327
Other cattle.....	114	107	102	98	94	Other cattle.....	1,357	1,484	1,272	1,338	1,257
Sheep.....	111	114	104	95	79	Sheep.....	1,023	975	667	614	449
Swine.....	104	82	78	92	63	Swine.....	2,279	1,469	940	964	834
<b>Quebec—</b>						<b>British Columbia</b>					
Horses.....	344	314	318	317	314	Horses.....	62	60	57	53	51
Milk cows.....	1,071	1,104	1,098	1,121	1,130	Milk cows.....	96	99	96	95	94
Other cattle.....	959	908	874	913	886	Other cattle.....	285	318	294	263	268
Sheep.....	638	649	595	572	475	Sheep.....	148	139	125	106	105
Swine.....	1,001	844	868	1,061	975	Swine.....	98	69	67	77	59

## 19.—Average Values per Head of Farm Live Stock, by Provinces, 1944-48

NOTE.—Figures for years prior to 1944 will be found in corresponding tables in previous editions of the Year Book.

Province and Item	1944	1945	1946	1947	1948	Province and Item	1944	1945	1946	1947	1948
	\$	\$	\$	\$	\$		\$	\$	\$	\$	\$
<b>Totals—</b>						<b>Ontario—</b>					
Horses.....	75	69	75	78	77	Horses.....	102	95	98	99	95
All cattle.....	67	68	76	82	98	All cattle.....	77	79	90	93	113
Milk cows.....	97	98	111	117	136	Milk cows.....	111	114	138	131	157
Other cattle.....	49	51	55	61	74	Other cattle.....	51	53	60	64	79
Sheep.....	9-90	9-40	10-00	11-10	12-70	Sheep.....	11-80	11-80	12-20	13-00	15-60
Swine.....	18-40	20-10	22-80	24-50	31-40	Swine.....	19-40	22-70	25-40	25-40	34-90
<b>P. E. Island—</b>						<b>Manitoba—</b>					
Horses.....	113	115	114	109	104	Horses.....	59	53	53	59	58
All cattle.....	52	57	65	72	83	All cattle.....	65	64	66	77	90
Milk cows.....	78	85	96	108	124	Milk cows.....	91	87	92	108	123
Other cattle.....	32	35	39	43	49	Other cattle.....	43	51	52	61	71
Sheep.....	8-60	9-20	10-20	11-30	13-70	Sheep.....	9-30	8-00	8-80	10-20	11-50
Swine.....	20-20	21-60	25-50	27-50	33-20	Swine.....	18-50	19-00	19-10	22-50	28-80
<b>Nova Scotia—</b>						<b>Saskatchewan—</b>					
Horses.....	140	144	153	153	139	Horses.....	48	40	42	45	46
All cattle.....	55	58	71	82	94	All cattle.....	64	62	66	75	90
Milk cows.....	80	83	99	115	131	Milk cows.....	93	87	94	108	123
Other cattle.....	53	56	47	51	57	Other cattle.....	52	53	55	64	78
Sheep.....	9-40	9-90	8-90	9-40	10-90	Sheep.....	9-40	7-70	8-20	9-80	11-30
Swine.....	18-90	20-30	25-70	27-20	28-40	Swine.....	17-70	18-60	18-60	21-40	28-20
<b>New Brunswick—</b>						<b>Alberta—</b>					
Horses.....	143	142	146	128	127	Horses.....	49	41	45	48	50
All cattle.....	54	55	63	74	87	All cattle.....	62	63	67	76	92
Milk cows.....	77	77	89	102	121	Milk cows.....	88	89	96	108	129
Other cattle.....	51	30	34	43	50	Other cattle.....	54	56	59	69	83
Sheep.....	8-80	8-30	9-10	9-40	10-70	Sheep.....	9-00	8-60	8-70	9-90	11-50
Swine.....	20-20	20-30	23-10	27-10	31-10	Swine.....	18-10	18-90	19-50	22-80	28-00
<b>Quebec—</b>						<b>British Columbia</b>					
Horses.....	137	134	134	131	125	Horses.....	101	96	100	98	102
All cattle.....	68	70	81	82	93	All cattle.....	64	64	67	78	92
Milk cows.....	96	95	111	112	125	Milk cows.....	88	91	94	109	125
Other cattle.....	37	39	43	44	53	Other cattle.....	57	56	59	67	81
Sheep.....	10-10	9-50	10-60	11-60	12-10	Sheep.....	11-20	10-70	11-50	12-40	14-10
Swine.....	17-80	18-60	24-00	25-80	30-30	Swine.....	17-60	19-20	20-10	24-70	27-80

Under the Meat and Canned Goods Act, establishments such as abattoirs and meat-packing plants that prepare meat products for export are subject to inspection. Local wholesale butchering and such slaughterings as are carried out by retail butchers and by farmers for their own use are not included in Table 20. Actually, the growth of the slaughtering and meat-packing industry has been accompanied by a concentration of the major part of the production into a comparatively small number of large establishments to facilitate greater efficiency and utilization of products. These figures, therefore, are fairly inclusive. The industry is dealt with in its proper relation to all other manufacturing enterprises in Chapter XVII. It normally ranks among the three largest manufacturing industries in Canada in gross values of production but it owes its importance to the value of raw products obtained from the farmer and rancher rather than to the value added by the manufacturing process.

**20.—Live Stock Slaughtered at Canadian Inspected Establishments, 1933-47 and by Months, 1948**

Year	Cattle	Calves	Sheep	Hogs	Year and Month	Cattle	Calves	Sheep	Hogs
	No.	No.	No.	No.		No.	No.	No.	No.
1933.....	654,000	438,428	868,679	2,802,377	<b>1948—</b>				
1934.....	804,290	542,842	854,222	2,871,980	January.....	129,269	25,478	57,663	570,214
1935.....	789,711	586,851	861,228	2,805,825	February.....	101,702	27,172	46,257	446,401
1936.....	920,229	602,616	830,975	3,562,534	March.....	108,435	62,189	46,708	496,602
1937.....	923,961	702,405	821,758	3,802,141	April.....	102,580	105,107	26,000	420,055
1938.....	859,260	676,579	801,679	3,137,203	May.....	96,096	104,896	13,950	397,094
1939.....	873,660	679,117	783,828	3,623,645	June.....	94,132	87,970	22,765	344,635
1940.....	890,919	703,918	765,165	5,457,083	July.....	96,139	73,182	43,939	256,131
1941.....	1,003,691	727,829	828,603	6,280,345	August.....	121,778	71,869	100,025	214,954
1942.....	970,415	666,672	825,368	6,196,850	September.....	162,754	69,667	126,746	233,793
1943.....	1,021,054	594,087	889,317	7,168,525	October.....	165,188	65,839	137,748	321,185
1944.....	1,354,121	661,245	959,169	8,766,417	November.....	188,416	59,807	103,755	410,194
1945.....	1,891,024	787,626	1,185,161	5,681,629	December.....	123,394	34,234	43,387	376,391
1946.....	1,668,441	752,343	1,213,235	4,252,591	<b>Totals.....</b>	<b>1,489,883</b>	<b>787,410</b>	<b>768,943</b>	<b>4,487,649</b>
1947.....	1,291,759	665,311	900,766	4,452,816					

**Wool.**—Total wool production in Canada in 1948 amounted to 11,915,000 lb. as compared with an estimate of 14,090,000 lb. for 1947. The very significant decline in wool production in 1948 reflected the continued decrease in sheep numbers. Shorn wool production again decreased in every province. With fewer sheep available for slaughter, production of pulled wool also decreased by 422,000 lb.

Domestic disappearance of wool in 1948 was 102,167,000 lb. as compared with 88,882,000 lb. in 1947. As data on stocks are not available, the estimates of domestic disappearance are subject to error to the extent that changes in stocks actually took place. Wool imports during 1948 increased by about 15,000,000 lb. over the previous year.

The farm value of shorn wool and farm cash income from the sales of wool rose steadily from 1939 to 1944. Since 1945, however, the rapid decline in the number of sheep has resulted in less income from wool despite a gradual rise in farm prices. The average farm price of wool for Canada increased from 28.2 cents per lb. in 1947 to 28.9 cents per lb. in 1948.

**21.—Estimated Production, Exports, Imports and Apparent Consumption of Wool, 1941-48**

**NOTE.**—All estimates are on a 'greasy' basis. Comparable statistics of production for the years 1920-29 are given at p. 219 of the 1939 Year Book, for 1930-36 at p. 214 of the 1945 edition and for 1937-40 at p. 368 of the 1948-49 edition.

Year	Shorn				Pulled	Total Production	Exports	Imports	Apparent Consumption
	Yield per Fleece	Total Yield Shorn	Price per Pound	Total Value Shorn					
	lb.	'000 lb.	cts.	\$	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
1941.....	7.5	11,630	22.1	2,571,000	3,624	15,254	3,025	93,070	105,299
1942.....	7.7	12,867	25.5	3,283,000	3,610	16,477	384	114,428	130,521
1943.....	7.5	13,929	27.0	3,761,000	3,889	17,818	2,316	104,364	119,866
1944.....	7.5	15,128	27.1	4,106,000	4,151	19,279	15,520	52,690	56,449
1945.....	7.6	14,513	27.7	4,015,000	5,113	19,626	11,927	59,506	67,205
1946.....	7.5	11,457	28.0	3,208,000	5,290	16,747	6,409	100,042	110,380
1947.....	7.4	10,176	28.2	2,865,000	3,914	14,090	5,103	79,895	88,882
1948.....	7.2	8,423	28.9	2,437,000	3,492	11,915	4,929	95,181	102,167



## Subsection 6.—Poultry and Eggs

The number of poultry on farms in Canada on June 1, 1948, was less than at the corresponding date in 1947 but the value per head increased in the case of turkeys, geese and ducks. The value per head of hens and chickens did not change although the total value declined more than 8 p.c. The decrease in birds was common to all kinds of farm poultry, the drop being 18 p.c. Cost of feed, without a sufficiently commensurate increase in egg prices, was the reason given by many producers for reducing their flocks.

The decline in hens and chickens brought down the total egg production 5 p.c. from the high production of 1947, but the average value per dozen for all grades and all purposes was 44 cents as compared with 36 cents in 1947, and the reduced quantity in 1948 had a greater value than the total 1947 value. The average number of layers throughout 1948 was less by 2,242,000 birds, but the production per average hen was 4 eggs higher.

Poultry-meat production of all poultry in 1948 was 17 p.c. less than in 1947. Fowl and chicken meat was 82 p.c. of the 1947 figures, turkey meat 90 p.c., goose meat 87 p.c. and duck meat 99 p.c.

## 22.—Numbers and Values of Farm Poultry, by Provinces, as at June 1, 1946-48

NOTE.—Figures for years prior to 1946 will be found in corresponding tables in previous editions of the Year Book.

Province and Year	Total Poultry		Hens and Chickens		Turkeys		Geese		Ducks	
	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value
	'000	\$'000	'000	\$'000	'000	\$'000	'000	\$'000	'000	\$'000
P.E.I.—										
1946.....	1,184	1,462	1,147	1,380	10	35	16	33	11	14
1947.....	1,369	1,600	1,333	1,510	13	48	12	27	11	15
1948.....	993	1,191	957	1,077	13	62	12	34	11	18
N.S.—										
1946.....	2,338	2,728	2,300	2,642	23	63	8	15	7	8
1947.....	2,682	3,361	2,632	3,218	35	115	9	21	6	7
1948.....	1,870	2,426	1,814	2,211	43	184	8	23	5	8
N.B.—										
1946.....	1,713	2,104	1,672	1,993	24	75	10	24	7	12
1947.....	1,879	2,370	1,829	2,227	32	103	11	27	7	13
1948.....	1,308	1,718	1,265	1,558	27	118	9	29	7	13
Que.—										
1946.....	12,571	14,925	12,183	13,959	283	822	30	62	75	82
1947.....	14,004	19,482	13,513	18,100	404	1,253	25	53	62	76
1948.....	10,994	16,358	10,605	15,067	316	1,147	16	44	57	100
Ont.—										
1946.....	29,774	33,564	28,467	30,679	668	1,916	290	578	349	391
1947.....	30,744	34,751	29,438	31,588	755	2,307	244	511	307	345
1948.....	25,395	29,102	24,450	26,315	530	2,038	170	433	245	316
Man.—										
1946.....	7,574	6,291	7,073	5,392	357	742	67	94	77	63
1947.....	8,224	8,067	7,619	6,752	448	1,112	77	125	80	78
1948.....	7,360	6,781	7,035	5,896	253	773	36	71	36	41
Sask.—										
1946.....	11,333	9,529	10,599	8,115	597	1,258	62	87	75	69
1947.....	13,535	12,547	12,780	10,741	627	1,635	58	104	70	67
1948.....	9,962	8,658	9,590	7,600	300	934	32	74	40	50
Alta.—										
1946.....	9,793	8,320	9,045	6,970	568	1,151	99	130	81	69
1947.....	10,916	10,016	10,055	8,091	677	1,684	94	148	90	93
1948.....	10,400	8,995	9,833	7,768	437	1,033	77	138	53	56

**22.—Numbers and Values of Farm Poultry, by Provinces, as at June 1,  
1946-48—concluded**

Province and Year	Total Poultry		Hens and Chickens		Turkeys		Geese		Ducks	
	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value
	'000	\$'000	'000	\$'000	'000	\$'000	'000	\$'000	'000	\$'000
<b>B.C.—</b>										
1946.....	4,555	5,056	4,427	4,738	108	288	8	17	12	13
1947.....	4,911	5,753	4,715	5,224	175	496	8	18	13	15
1948.....	4,298	5,353	4,129	4,790	147	523	8	20	14	20
<b>Totals—</b>										
1946.....	80,835	83,979	76,913	75,868	2,638	6,350	590	1,040	694	721
1947.....	88,264	97,947	83,914	87,451	3,166	8,753	538	1,034	646	709
1948.....	72,580	80,582	69,678	72,282	2,066	6,812	368	866	468	622

**23.—Production, Utilization and Total Value of Farm Eggs, by Provinces,  
1946-48**

Province and Year	Average Number of Layers	Average Production Per 100 Layers	Net Eggs Laid <sup>1</sup>	Sold	Used on Farms <sup>2</sup>	Value Per Dozen <sup>3</sup>	Total Value Sold and Used
	'000	No.	'000 doz.	'000 doz.	'000 doz.	cts.	\$'000
<b>Prince Edward Island—</b>							
1946.....	486	15,608	6,268	5,344	918	33-1	2,070
1947.....	508	14,956	6,288	5,352	924	33-6	2,107
1948.....	480	14,794	5,872	5,105	768	41-8	2,454
<b>Nova Scotia—</b>							
1946.....	649	15,497	8,308	6,102	2,155	38-9	3,211
1947.....	836	15,617	10,796	8,172	2,637	39-2	4,236
1948.....	966	16,259	12,977	9,850	3,125	47-0	6,104
<b>New Brunswick—</b>							
1946.....	576	15,164	7,222	4,985	2,181	36-3	2,599
1947.....	603	15,427	7,696	5,678	2,048	39-5	3,050
1948.....	567	15,147	7,110	5,209	1,896	44-7	3,174
<b>Quebec—</b>							
1946.....	4,112	15,340	52,032	37,946	13,785	38-7	20,020
1947.....	4,979	14,912	61,274	46,596	14,842	39-0	23,952
1948.....	4,777	15,249	60,131	46,186	13,758	47-6	28,507
<b>Ontario—</b>							
1946.....	10,010	15,738	130,048	112,207	17,180	37-1	48,066
1947.....	12,166	15,342	154,160	136,678	17,484	37-6	58,036
1948.....	10,661	16,064	141,331	125,459	15,951	45-3	64,108
<b>Manitoba—</b>							
1946.....	2,287	13,657	25,767	19,811	5,807	33-0	8,460
1947.....	2,483	13,440	27,534	21,966	5,557	32-8	9,015
1948.....	2,398	13,516	26,734	21,541	5,218	39-9	10,683
<b>Saskatchewan—</b>							
1946.....	3,330	13,031	35,674	26,070	9,512	31-3	11,150
1947.....	3,844	12,546	39,164	29,218	9,847	30-2	11,781
1948.....	3,417	12,925	36,440	27,673	8,793	40-0	14,598
<b>Alberta—</b>							
1946.....	3,133	12,852	33,056	25,077	7,770	31-2	10,240
1947.....	3,416	13,404	37,718	28,488	9,230	31-0	11,702
1948.....	3,423	13,265	37,380	29,422	8,026	39-7	14,855
<b>British Columbia—</b>							
1946.....	1,827	16,682	25,188	22,531	2,603	32-5	8,172
1947.....	2,142	16,415	29,066	25,981	2,971	39-4	11,419
1948.....	2,046	16,670	28,191	25,350	2,878	42-3	11,934
<b>Totals—</b>							
1946.....	26,410	14,856	323,563	260,073	61,911	35-4	113,988
1947.....	30,977	14,612	373,696	308,129	65,540	36-2	135,298
1948.....	28,735	15,019	356,166	295,795	60,413	43-9	156,417

<sup>1</sup> Total laid less loss. This figure is not equal to "Sold" and "Used on Farms" because of the carry-over on farms at beginning and end of the year.

<sup>2</sup> Includes eggs used for hatching.

<sup>3</sup> Average

## 24.—Domestic Disappearance of Eggs and Poultry in Canada, 1946-48

Type and Year	Farm Production	Elsewhere Produced	Total Production	Total Supply	Domestic Disappear- ance	Per Capita Con- sumption
	'000 doz.	'000 doz.	'000 doz.	'000 doz.	'000 doz.	doz.
<b>Eggs—</b>						
1946.....	323,563	28,778	352,341	368,453	296,829 <sup>1</sup>	23.27 <sup>2</sup>
1947.....	373,696 <sup>r</sup>	33,680 <sup>r</sup>	407,376 <sup>r</sup>	417,676 <sup>r</sup>	317,260 <sup>1r</sup>	24.04 <sup>2r</sup>
1948.....	356,166	32,413	388,579	402,872	311,642 <sup>1</sup>	23.50 <sup>2</sup>
<b>Fowl and Chickens—</b>	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	lb.
1946.....	232,250	18,956	251,206	266,275	237,127	19.33
1947.....	257,095 <sup>r</sup>	21,066 <sup>r</sup>	278,161 <sup>r</sup>	305,098 <sup>r</sup>	266,367 <sup>r</sup>	21.17 <sup>r</sup>
1948.....	209,334	17,797	227,131	256,308	203,690	15.88
<b>Turkeys—</b>						
1946.....	26,653	955	27,608	32,839	28,760	2.35
1947.....	37,551 <sup>r</sup>	1,809 <sup>r</sup>	39,360 <sup>r</sup>	45,575 <sup>r</sup>	38,544 <sup>r</sup>	3.06 <sup>r</sup>
1948.....	33,881	1,552	35,433	41,490	36,395	2.84
<b>Geese—</b>						
1946.....	4,195	120	4,315	4,384	4,276	0.35
1947.....	4,627 <sup>r</sup>	148 <sup>r</sup>	4,775 <sup>r</sup>	4,883 <sup>r</sup>	4,785 <sup>r</sup>	0.38 <sup>r</sup>
1948.....	4,017	131	4,148	4,246	4,148	0.32
<b>Ducks—</b>						
1946.....	2,073	64	2,137	2,220	2,146	0.17
1947.....	2,116 <sup>r</sup>	82 <sup>r</sup>	2,198 <sup>r</sup>	2,272 <sup>r</sup>	2,155 <sup>r</sup>	0.17 <sup>r</sup>
1948.....	2,094	86	2,180	2,297	2,214	0.17
<b>All Poultry—</b>						
1946.....	265,171	20,095	285,266	305,718	272,309	22.20
1947.....	301,389 <sup>r</sup>	23,105 <sup>r</sup>	324,494 <sup>r</sup>	357,828 <sup>r</sup>	311,851 <sup>r</sup>	24.78 <sup>r</sup>
1948.....	249,326	19,566	268,892	304,341	246,447	19.21

<sup>1</sup> Includes hatching eggs.<sup>2</sup> Excludes hatching eggs.

## Subsection 7.—Dairying

**Production and Utilization of Milk.**—While total milk production has not varied significantly since 1940 there has been considerable increase in population and in consumer spending power which has resulted in slight shifts in the milk utilization pattern. Total estimated production in 1948 was 16,645,141,000 lb., a decline of almost 600,000,000 lb. from 1947 and of nearly 875,000,000 lb. from 1943. However, the quantity used for factory production in 1948 was 12 p.c. less than in 1943 and fluid trade requirements increased 8 p.c. While cheese production fell off markedly and creamery butter decreased slightly in 1948 from the previous year, there was a considerable increase in the production of concentrated milk products.

**Farm Value of Milk Production.**—Gross farm value of milk production at \$484,942,000 in 1948 increased 20 p.c. over 1947 and was approximately 63 p.c. greater than in 1943. The upward trend of prices for dairy products was reflected in a steady advance in farm values of milk production since 1939. The gross value in 1948 was more than three times the average gross value of annual production during the five-year period 1935-39.

## 25.—Production and Utilization of Milk in Canada, 1943-48, and by Provinces, 1946-48

NOTE.—Figures for the years 1921-41 are given at p. 6 of the report "Dairying Statistics of Canada, 1947"; for the year 1942 at p. 237 of the 1946 Year Book.

Province and Year	Used in Manufacture		Milk Otherwise Used			Total Milk Production
	On Farms	In Factories	Fluid Sales	Farm-Home Consumed	Fed on Farms	
	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
Prince Edward Island..1946	11,961	100,393	22,677	26,473	7,415	168,919
1947	12,570	94,881	21,798	26,279	7,452	162,980
1948	15,288	113,846	21,503	25,344	8,583	184,564
Nova Scotia.....1946	60,937	188,910	136,524	48,687	13,040	448,098
1947	63,397	185,676	131,917	48,692	13,006	442,688
1948	68,551	171,293	127,887	47,988	14,112	429,831
New Brunswick.....1946	108,877	179,624	81,989	66,339	14,007	450,836
1947	112,181	180,266	80,798	66,116	14,247	453,608
1948	124,622	190,919	76,956	58,955	11,528	462,980
Quebec.....1946	183,322	2,683,018	1,351,919	374,101	162,108	4,754,468
1947	190,632	2,810,587	1,333,370	368,533	165,324	4,868,446
1948	234,025	2,712,520	1,284,865	337,050	163,663	4,732,123
Ontario.....1946	183,485	3,166,880	1,664,338	506,374	203,220	5,724,297
1947	193,419	3,347,653	1,610,397	507,285	206,741	5,865,495
1948	233,203	3,090,777	1,545,501	487,921	180,053	5,537,455
Manitoba.....1946	138,064	662,285	201,456	143,214	74,062	1,219,081
1947	141,016	677,535	197,032	142,515	74,528	1,232,626
1948	158,192	647,111	190,477	132,162	63,631	1,191,573
Saskatchewan.....1946	335,941	883,373	187,970	331,879	156,440	1,895,603
1947	348,780	874,679	185,400	322,026	155,680	1,886,565
1948	375,912	823,408	180,608	285,751	136,741	1,802,420
Alberta.....1946	217,454	800,041	281,806	204,848	153,634	1,657,783
1947	225,046	840,295	277,385	204,215	153,352	1,700,293
1948	232,862	845,372	268,352	180,337	145,192	1,672,115
British Columbia.....1946	38,695	207,261	325,321	38,157	27,034	636,468
1947	40,195	199,246	324,442	37,262	26,942	628,087
1948	37,888	211,523	319,583	38,655	24,431	632,080
<b>Totals.....1943</b>	<b>1,305,596</b>	<b>10,008,382</b>	<b>3,706,513</b>	<b>1,714,112</b>	<b>784,370</b>	<b>17,518,973</b>
1944	1,286,153	9,916,519	3,912,476	1,717,191	791,699	17,624,038
1945	1,256,709	9,849,786	4,007,858	1,716,296	796,123	17,626,772
1946	1,278,736	8,871,785	4,254,000	1,740,072	810,960	16,955,553
1947	1,327,236	9,210,818	4,162,539	1,722,923	817,272	17,240,788
1948	1,480,543	8,806,769	4,015,732	1,594,163	747,934	16,645,141

## 26.—Farm Values of Milk Production in Canada, 1943-48, and by Provinces, 1946-48

NOTE.—Figures for years prior to 1946 will be found in corresponding tables in previous editions of the Year Book.

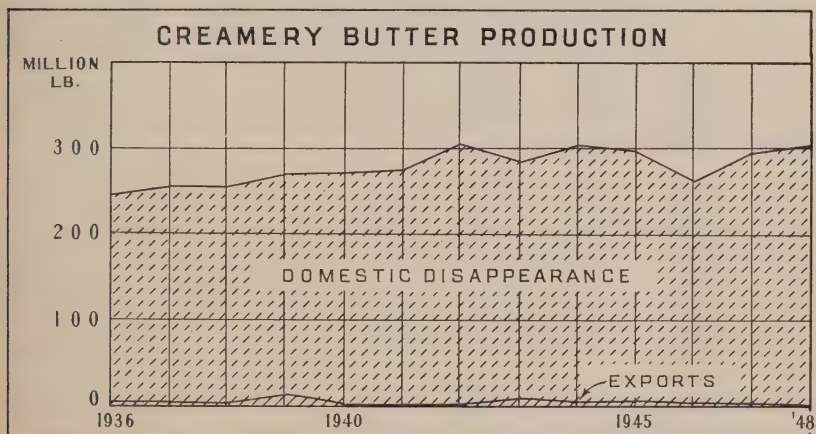
Province and Year	Used in Manufacture		Milk Otherwise Used			Total Milk Production
	On Farms	In Factories	Fluid Sales	Farm-Home Consumed	Fed on Farms	
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Prince Edward Island..1946	97	1,823	538	543	152	3,253
1947	268	1,897	640	604	171	3,580
1948	432	2,990	712	786	266	5,186
Nova Scotia.....1946	1,075	3,462	4,404	998	267	10,206
1947	1,435	3,714	4,353	1,100	294	10,896
1948	1,980	4,628	4,799	1,584	466	13,457
New Brunswick.....1946	1,910	3,302	2,447	1,393	294	9,346
1947	2,461	3,610	2,674	1,488	321	10,554
1948	3,696	4,981	3,044	1,898	371	13,990
Quebec.....1946	3,132	50,226	36,967	7,669	3,323	101,317
1947	4,176	57,396	41,819	8,403	3,769	115,563
1948	6,781	72,670	46,965	10,078	4,894	141,388



26.—Farm Values of Milk Production in Canada, 1943-48, and by Provinces, 1946-48  
—concluded

Province and Year	Used in Manufacture		Milk Otherwise Used			Total Milk Production
	On Farms	In Factories	Fluid Sales	Farm-Home Consumed	Fed on Farms	
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Ontario.....1946	3,176	62,101	47,184	10,279	4,125	126,865
1947	4,358	70,343	52,165	11,414	4,652	142,932
1948	6,839	82,785	57,088	13,759	5,077	165,548
Manitoba.....1946	2,171	11,056	5,341	2,678	1,385	22,631
1947	2,946	12,865	5,605	2,993	1,565	25,974
1948	4,309	15,717	6,514	3,502	1,686	31,728
Saskatchewan.....1946	5,440	14,490	4,770	6,239	2,941	33,880
1947	7,066	16,418	5,355	6,891	3,332	39,062
1948	9,971	19,910	6,004	7,630	3,651	47,166
Alberta.....1946	3,552	13,013	7,334	3,974	2,980	30,853
1947	4,628	16,005	7,942	4,595	3,450	36,620
1948	6,196	20,595	9,435	4,923	3,964	45,113
British Columbia.....1946	653	3,934	9,639	740	524	15,490
1947	879	4,548	10,856	905	655	17,843
1948	1,031	6,132	12,354	1,133	716	21,366
Totals.....1943	19,826	152,905	84,650	27,046	12,422	296,849
1944	19,770	165,400	98,109	29,008	13,418	325,705
1945	19,915	163,226	102,981	30,680	14,152	329,954
1946	21,306	163,407	118,624	34,513	15,991	353,841
1947	28,217	186,796	131,409	38,393	18,209	403,024
1948	41,235	230,408	146,915	45,293	21,091	484,942

**Butter Production.**—The total butter production in 1948 amounted to 347,274,000 lb. This was an increase of 27,000 lb. over 1947, but a decrease of 21,226,000 lb. as compared with the high point of 368,500,000 lb. in 1941. The production of creamery butter in 1948 amounted to 284,431,000 lb., representing a decline of 6,521,000 lb. from 1947. This was more than offset by an increase in the estimated dairy-butter make.



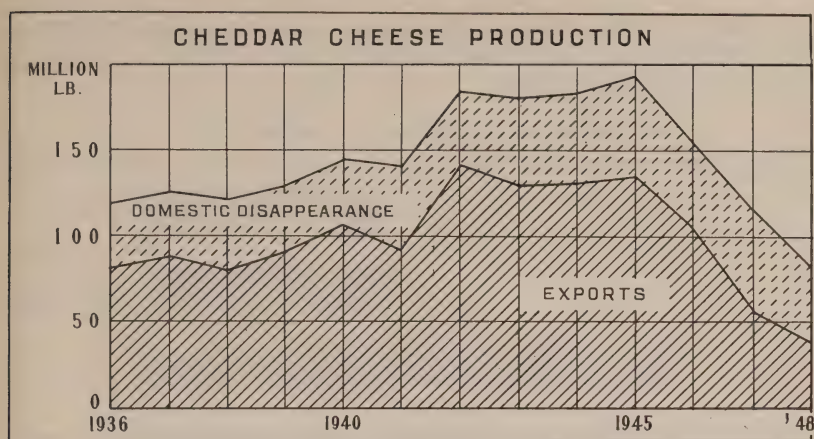
**27.—Production of Butter and Cheese in Canada, 1943-48, and by Provinces, 1946-48**

NOTE.—Figures for years prior to 1946 will be found in corresponding tables in previous editions of the Year Book.

Province and Year	Butter			Cheese <sup>1</sup>		
	Creamery	Dairy	Total	Factory <sup>1</sup>	Farm-made	Total <sup>1</sup>
	lb.	lb.	lb.	lb.	lb.	lb.
Prince Edward Island...1946	3,896,000	510,000	4,406,000	737,000	1,000	738,000
1947	3,657,000	536,000	4,193,000	664,000	1,000	665,000
1948	4,445,000	652,000	5,097,000	686,000	1,000	687,000
Nova Scotia.....1946	6,988,000	2,587,000	9,575,000	—	29,000	29,000
1947	6,690,000	2,692,000	9,382,000	—	29,000	29,000
1948	6,068,000	2,912,000	8,980,000	—	29,000	29,000
New Brunswick.....1946	6,921,000	4,645,000	11,566,000	970,000	4,000	974,000
1947	6,913,000	4,786,000	11,699,000	743,000	4,000	747,000
1948	7,252,000	5,317,000	12,569,000	740,000	4,000	744,000
Quebec.....1946	85,355,000	7,810,000	93,165,000	43,195,000	30,000	43,225,000
1947	97,371,000	8,122,000	105,493,000	25,448,000	30,000	25,478,000
1948	96,002,000	9,974,000	105,976,000	14,023,000	30,000	14,053,000
Ontario.....1946	69,171,000	7,757,000	76,928,000	96,367,000	156,000	96,523,000
1947	77,160,000	8,181,000	85,341,000	90,410,000	156,000	90,566,000
1948	74,462,000	9,880,000	84,342,000	67,520,000	154,000	67,674,000
Manitoba.....1946	26,059,000	5,837,000	31,896,000	3,228,000	117,000	3,345,000
1947	26,340,000	5,963,000	32,303,000	3,543,000	117,000	3,660,000
1948	25,351,000	6,697,000	32,048,000	2,538,000	115,000	2,653,000
Saskatchewan.....1946	37,025,000	14,271,000	51,296,000	440,000	141,000	581,000
1947	36,330,000	14,819,000	51,149,000	380,000	141,000	521,000
1948	34,116,000	15,978,000	50,094,000	275,000	139,000	414,000
Alberta.....1946	30,744,000	9,175,000	39,919,000	3,258,000	223,000	3,481,000
1947	32,052,000	9,499,000	41,551,000	3,110,000	223,000	3,333,000
1948	32,414,000	9,834,000	42,248,000	2,568,000	220,000	2,788,000
British Columbia.....1946	5,332,000	1,633,000	6,965,000	689,000	39,000	728,000
1947	4,439,000	1,697,000	6,136,000	533,000	39,000	572,000
1948	4,321,000	1,599,000	5,920,000	431,000	38,000	469,000
<b>Totals.....1943</b>	<b>311,709,476</b>	<b>55,407,000</b>	<b>367,116,476</b>	<b>166,274,217</b>	<b>769,500</b>	<b>167,034,717</b>
1944	298,777,262	54,580,000	353,357,262	181,896,679	753,070	182,649,749
1945	293,811,000	53,283,000	347,094,000	188,729,000	744,000	189,473,000
1946	271,491,000	54,225,000	325,716,000	148,884,000	740,000	149,624,000
1947	290,952,000	56,295,000	347,247,000	124,831,000	740,000	125,571,000
1948	284,431,000	62,843,000	347,274,000	88,781,000	730,000	89,511,000

<sup>1</sup> Factory made cheese includes cheddar and other cheese made from whole milk. The latter, which amounted to 2,879,000 lb. in 1947 and 2,083,000 lb. in 1948, was produced in Quebec, Ontario, Manitoba, Saskatchewan and Alberta.

**Cheese Production.**—The demand for cheese during the War gave this commodity an important position relative to other dairy products. The 1942 output of 208,250,000 lb. was the highest since the turn of the century. However, with the increasing demand for other dairy products this position could not be maintained, and there has been a continuous decline since 1945. In 1948 the total production of 89,511,000 lb. was 36,060,000 lb. less than that of 1947. The 1948 output of cheddar cheese was 86,698,000 lb. and, combined with 2,083,000 lb. of factory cheese other than cheddar, amounted to a total factory production of 88,781,000 lb. The estimated production of farm-made cheese is approximately 730,000 lb. per year.



**Concentrated Milk Products.**—The data in Table 28 show the wide range of products being manufactured in concentrated milk plants and creameries equipped with powder manufacturing facilities. For purposes of classification these products are divided into whole-milk products and milk by-products. The former reached a total production of 309,196,000 lb. in 1948, an increase of approximately 49,500,000 lb. over the previous year. Production of evaporated milk, the most important member of this group, reached a total of 251,331,000 lb. in 1948, an increase of approximately 39,500,000 lb. as compared with the previous year and 67,000,000 lb. as compared with 1944. The 87,572,000 lb. of milk by-products produced in 1948 represented a gain of approximately 9,000,000 lb. over the previous year and 41,500,000 lb. over 1944. The upward movement has been continuous since 1943.

#### 28.—Production of Concentrated Milk Products, 1944-48

NOTE.—Figures for years prior to 1944 will be found in corresponding tables in previous editions of the Year Book.

Item	1944	1945	1946	1947	1948
	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
<b>Concentrated Whole-Milk Products—</b>					
Evaporated milk.....	184,344	200,529	191,586	211,829	251,331
Condensed milk.....	31,021	28,582	31,026	29,357	34,822
Whole-milk powder.....	16,022	14,850	15,468	15,825	18,965
Miscellaneous whole-milk products.....	1,070	1,743	2,729	2,722	4,078
<b>Totals, Concentrated Whole-Milk Products.....</b>	<b>232,457</b>	<b>245,705</b>	<b>240,809</b>	<b>259,733</b>	<b>309,196</b>
<b>Concentrated Milk By-Products—</b>					
Condensed skim milk.....	3,505	3,561	3,531	4,245	4,919
Evaporated skim milk.....	2,413	2,373	3,195	4,273	5,733
Skim-milk powder.....	29,703	37,111	42,580	54,503	64,253
Condensed buttermilk.....	2,400	2,549	2,501	3,619	2,753
Buttermilk powder.....	4,467	3,641	3,666	4,466	4,597
Casein.....	2,961	3,683	4,040	7,042	4,837
<b>Totals, Concentrated Milk By-Products<sup>1</sup>.....</b>	<b>46,002</b>	<b>53,561</b>	<b>59,990</b>	<b>78,623</b>	<b>87,572</b>
<b>Grand Totals.....</b>	<b>278,459</b>	<b>299,266</b>	<b>300,799</b>	<b>338,356</b>	<b>396,768</b>

<sup>1</sup> Includes lactose.

**Ice Cream.**—The Canadian output of ice cream in 1948 was approximately 25,000,000 gal., an increase of 1,714,000 gal. over the previous year. Compared

with 1939, the 1948 output showed an increase of approximately 16,000,000 gal. On a per capita basis the 1948 disappearance of ice cream amounted to 1.95 gal. or 27.90 lb. expressed as milk.

### 29.—Production of Ice Cream, by Provinces, 1944-48

NOTE.—Figures for years prior to 1944 will be found in corresponding tables in previous editions of the Year Book.

Province	1944	1945	1946	1947	1948
	'000 gal.	'000 gal.	'000 gal.	'000 gal.	'000 gal.
Prince Edward Island.....	100	83	63	126	144
Nova Scotia.....	1,147	1,057	915	1,350	1,520
New Brunswick.....	497	484	466	701	893
Quebec.....	3,309	3,254	3,180	4,427	4,902
Ontario.....	7,664	6,936	6,874	9,912	10,249
Manitoba.....	1,173	1,058	1,002	1,375	1,645
Saskatchewan.....	843	800	768	1,346	1,470
Alberta.....	1,162	1,042	1,036	1,717	1,840
British Columbia.....	1,771	1,638	1,525	2,487	2,492
<b>Totals.....</b>	<b>17,666</b>	<b>16,352</b>	<b>15,829</b>	<b>23,441</b>	<b>25,155</b>

**Domestic Disappearance.**—The estimated consumption of milk and cream shown in Table 30 on a milk basis amounted to 4,255,366,000 pt. in 1948. This represented a reduction of over 210,000,000 pt. from 1947 but an increase of over 401,000,000 pt. from 1942. On a per capita basis the average daily consumption was 0.90 pt. in 1948 as compared with 0.92 pt. in 1942 and a high point of 1.02 pt. in 1945 and 1946 when subsidies were in effect.

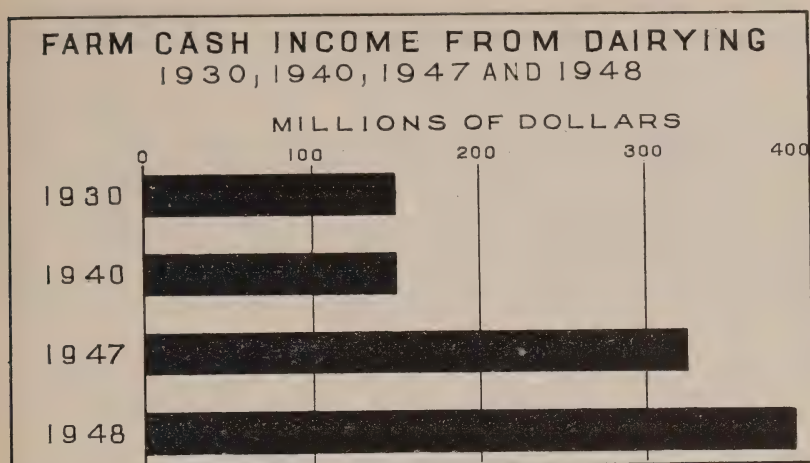
The domestic disappearance of butter in 1948 (including creamery, dairy and whey butter) amounted to approximately 369,000,000 lb. as compared with 352,000,000 lb. in 1947 and 337,000,000 lb. in 1943. On a per capita basis, the figures for the corresponding years were 28.61 lb., 27.96 lb. and 29.25 lb.

The domestic disappearance of cheese (including all varieties of factory cheese and farm-made cheese) was approximately 47,000,000 lb. in 1948, an average of 3.63 lb. per capita. This represented a considerable decline from the previous year when the disappearance was approximately 66,000,000 lb. or 5.25 lb. per capita.

The domestic disappearance of concentrated whole-milk products increased substantially, moving up to 17.63 lb. per capita in 1948 as compared with 16.50 lb. in the previous year; while milk by-products fell to 4.05 lb. per capita in 1948 from 4.58 lb. per capita in 1947.

Domestic disappearance of dairy products in terms of milk represented the equivalent of approximately 1,205 lb. per capita in comparison with 1,235 lb. in the previous year.





30.—Estimated Consumption of Milk in Canada, 1942-48, and by Provinces, 1946-48

Province and Year	Milk and Cream Consumed (in terms of Milk)		Province and Year	Milk and Cream Consumed (in terms of Milk)	
	Total	Per Capita per Day		Total	Per Capita per Day
	'000 pt.	pt.		'000 pt.	pt.
<b>Prince Edward Island—</b>			<b>Saskatchewan—</b>		
1946.....	37,574	1.10	1946.....	398,612	1.32
1947.....	36,762	1.07	1947.....	389,042	1.27
1948.....	35,816	1.05	1948.....	357,318	1.14
<b>Nova Scotia—</b>			<b>Alberta—</b>		
1946.....	140,399	0.63	1946.....	370,698	1.27
1947.....	136,939	0.60	1947.....	366,882	1.22
1948.....	133,363	0.57	1948.....	341,580	1.10
<b>New Brunswick—</b>			<b>British Columbia—</b>		
1946.....	113,076	0.65	1946.....	274,200	0.75
1947.....	112,008	0.62	1947.....	272,845	0.72
1948.....	103,568	0.56	1948.....	270,271	0.68
<b>Quebec—</b>			<b>Totals—</b>		
1946.....	1,306,560	0.99	1942.....	3,854,213	0.92
1947.....	1,288,296	0.95	1943.....	4,125,431	0.98
1948.....	1,227,418	0.88	1944.....	4,281,392	1.01
<b>Ontario—</b>			1945.....	4,344,123	1.02
1946.....	1,644,017	1.10	1946.....	4,547,637	1.02
1947.....	1,604,163	1.05	1947.....	4,465,570	0.97
1948.....	1,540,354	0.98	1948.....	4,255,366	0.90
<b>Manitoba—</b>					
1946.....	262,501	0.99			
1947.....	258,633	0.95			
1948.....	245,678	0.89			

## 31.—Domestic Disappearance of Dairy Products in Canada, 1943-48

Year	BUTTER							
	Creamery		Dairy		Whey		Total Butter	
	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita
	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.
1943.....	279,050	24.24	55,421	4.82	2,200	0.19	336,671	29.25
1944.....	299,405	25.86	54,574	4.71	2,745	0.24	356,724	30.81
1945.....	292,970	25.05	53,348	4.56	2,734	0.23	349,052	29.84
1946.....	259,149	21.13	54,277	4.42	2,505	0.20	315,931	25.75
1947.....	293,224	23.31	56,298	4.47	2,269	0.18	351,791	27.96
1948.....	304,197	23.61	62,845	4.88	1,590	0.12	368,632	28.61
Year	CHEESE							
	Cheddar		Other		Farm-Made		Total Cheese	
	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita
	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.
1943.....	52,020	4.52	2,272	0.20	761	0.06	55,053	4.78
1944.....	51,889	4.48	2,349	0.20	753	0.07	54,991	4.75
1945.....	57,908	4.95	2,627	0.23	744	0.06	61,279	5.24
1946.....	47,785	3.89	4,147	0.34	740	0.06	52,672	4.29
1947.....	61,319	4.87	3,954	0.32	740	0.06	66,013	5.25
1948.....	42,964	3.33	3,018	0.24	730	0.06	46,712	3.63
Year	CONCENTRATED WHOLE-MILK PRODUCTS							
	Evaporated		Condensed		Powdered		Total <sup>1</sup>	
	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita
	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.
1943.....	154,648	13.44	9,453	0.82	14,093	1.22	178,963	15.55
1944.....	130,949	11.31	10,251	0.89	13,394	1.16	155,662	13.45
1945.....	147,020	12.57	11,312	0.97	10,504	0.90	170,582	14.58
1946.....	145,705	11.88	12,208	1.00	9,949	0.81	170,586	13.91
1947.....	181,911	14.46	12,440	0.99	10,567	0.84	207,645	16.50
1948.....	199,756	15.51	13,029	1.01	10,222	0.79	227,078	17.63
Year	CONCENTRATED MILK BY-PRODUCTS							
	Evaporated		Condensed		Powdered		Total <sup>2</sup>	
	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita
	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.
1943.....	1,643	0.14	3,994	0.35	22,771	1.98	39,617	3.44
1944.....	2,359	0.20	3,361	0.29	27,540	2.38	43,778	3.78
1945.....	2,424	0.21	3,638	0.31	31,914	2.73	47,421	4.05
1946.....	2,977	0.24	3,588	0.29	35,657	2.91	52,449	4.28
1947.....	4,260	0.34	4,329	0.34	37,195	2.96	57,617	4.58
1948.....	5,518	0.43	4,558	0.35	32,130	2.49	52,188	4.05
Year	FLUID MILK AND CREAM							
	Milk		Cream as Product		Cream as Milk		Total	
	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita
	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.
1943.....	4,461,935	387.66	190,554	16.56	847,495	73.63	5,309,430	461.29
1944.....	4,631,749	400.08	212,316	18.34	880,545	76.06	5,512,294	476.14
1945.....	4,837,155	413.54	190,571	16.29	766,763	65.55	5,603,918	479.09
1946.....	5,069,503	413.26	197,532	16.10	796,949	64.97	5,866,452	478.23
1947.....	4,873,802	387.36	195,344	15.53	886,784	70.48	5,760,586	457.84
1948.....	4,654,596	361.30	179,066	13.90	834,827	64.80	5,488,423	426.10

For footnotes, see end of table.

## 31.—Domestic Disappearance of Dairy Products in Canada, 1943-48—concluded

Year	ALL DAIRY PRODUCTS IN TERMS OF MILK							
	Butter		Cheese		Concentrated Whole Milk		Total <sup>3</sup>	
	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita
	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.
1943.....	7,829,967	680·28	616,593	53·57	478,496	41·57	14,505,374	1,260·24
1944.....	8,286,648	715·79	615,899	53·20	421,911	36·44	15,114,285	1,305·54
1945.....	8,114,231	693·70	682,648	58·36	438,636	37·50	15,073,103	1,288·63
1946.....	7,343,571	598·64	586,767	47·83	436,445	35·58	14,459,431	1,178·72
1947.....	8,189,300	650·87	735,385	58·45	520,604	41·38	15,540,847	1,235·16
1948.....	8,599,794	667·53	520,372	40·39	559,488	43·43	15,528,542	1,205·35

<sup>1</sup> Includes malted milk, cream powder, 1943-48, and sub-standard products of a variable fat content, 1944-48, items which do not appear separately in this table. <sup>2</sup> Includes milk by-products items not separately listed, namely, condensed buttermilk, powdered buttermilk, sugar of milk and casein, 1943-48. <sup>3</sup> Ice cream in terms of milk is included in the total for all products.

## Subsection 8.—Horticulture

A survey of the floriculture and nursery stock industry was conducted annually until 1943 when, as a wartime measure, it was discontinued.

**Fruit Production.**—The production of fruit in Canada on a commercial scale is confined to well defined areas in five provinces. In Nova Scotia production is mainly centred in the counties of the Annapolis Valley and to a lesser extent in Hants County; in New Brunswick, it is centred in the counties of the St. John River Valley and Westmorland County. The fruit districts in Quebec include the Montreal area, North Shore area, the Eastern Townships and Quebec City district; in Ontario, all the counties adjacent to the St. Lawrence River and Great Lakes as far as Georgian Bay—the most famous sections being in the Niagara district; and in British Columbia the four well defined fruit areas are the Okanagan Valley, Fraser Valley, the Kootenay and Arrow Lakes section and Vancouver Island.

These areas yield large quantities of plums, peaches, apricots, cherries, strawberries, raspberries and other small fruits. A short article is given below on the production of grapes; this will be followed in succeeding editions of the Year Book by short synopses of other fruits.

**Grapes.**—Grapes were among the first fruits to be cultivated in Canada. Early records of French settlers in the city of Quebec show that grapes were found growing wild in abundance and that attempts were made to cultivate them. The first records of the area devoted to grapes in Canada are to be found in Census Volume I, 1891. In that year there were 5,951 acres of vineyard of which 4,956 acres or 83 p.c. were located in Ontario. In those days Essex County had the greatest area with 1,062 acres followed by Lincoln with 968 acres, Wentworth with 881 acres and Welland with 548 acres. The area in British Columbia amounted to only 30 acres. By 1941 the Canadian acreage had expanded to 17,489 acres, 73 p.c. of which were located in Ontario. Lincoln is now the most important grape-growing county with 11,593 acres followed by Wentworth and Welland Counties. The area in British Columbia also has expanded and now amounts to 562 acres.

The bulk of the grape crop is consumed by the wineries. In 1947, the latest year for which information is available, the wineries used 48,327,000 lb. out of a total crop of 73,803,000 lb. The chief wine varieties are Concord and Niagara

although such varieties as Delaware, President, Lomanto, Duchess and Catawba are also used for this purpose. The older vineyards are planted to the *labrusca* type or fox grapes while the newer plantations are made up of hybrid varieties which are crosses between the *labrusca* and the *vinifera* or European type of grape.

Table 32 shows the estimated commercial quantity and value of fruit grown in Canada.

**32.—Estimated Commercial Production and Shipping-Point Values of Fruit, 1945-47, with Five-Year Averages, 1940-44**

Kind of Fruit and Year	Quantity	Weight	Value	Average Value per Unit of Quantity
	bu.	lb.	\$	\$
Apples—				
Av. 1940-44.....	13,451,000	605,295,000	14,452,000	1.07
1945.....	7,635,000	343,575,000	12,557,000	1.63
1946.....	19,282,000	867,690,000	27,196,000	1.41
1947.....	15,619,000	702,855,000	22,840,000	1.46
Pears—				
Av. 1940-44.....	733,000	36,660,000	1,367,000	1.86
1945.....	600,000	30,000,000	1,532,000	2.64
1946.....	951,000	47,550,000	2,278,000	2.40
1947.....	966,000	48,300,000	2,178,000	2.25
Plums and Prunes—				
Av. 1940-44.....	413,000	20,650,000	881,000	2.13
1945.....	486,000	24,300,000	1,270,000	2.61
1946.....	811,000	40,550,000	1,755,000	2.16
1947.....	779,000	38,950,000	1,471,000	1.89
Peaches—				
Av. 1940-44.....	1,452,000	72,580,000	2,978,000	2.05
1945.....	1,566,000	78,300,000	4,502,000	2.87
1946.....	2,145,000	107,250,000	5,356,000	2.50
1947.....	1,681,000	84,050,000	4,128,000	2.46
Apricots—				
Av. 1940-44.....	83,000	4,130,000	224,000	2.70
1945.....	87,000	4,350,000	319,000	3.67
1946.....	147,000	7,350,000	446,000	3.03
1947.....	116,000	5,800,000	327,000	2.82
Cherries—				
Av. 1940-44.....	277,000	13,840,000	1,410,000	5.09
1945.....	237,000	11,850,000	1,724,000	7.27
1946.....	337,000	16,850,000	2,113,000	6.27
1947.....	299,000	14,950,000	2,128,000	7.12
Strawberries—	qt.			
Av. 1940-44.....	19,512,000	24,390,000	2,390,000	0.12
1945.....	16,726,000	20,908,000	4,186,000	0.25
1946.....	17,412,000	21,765,000	4,498,000	0.26
1947.....	25,659,000	32,074,000	5,404,000	0.21
Raspberries—				
Av. 1940-44.....	10,106,000	12,632,000	1,885,000	0.19
1945.....	12,548,000	15,685,000	3,147,000	0.25
1946.....	13,240,000	16,550,000	3,364,000	0.25
1947.....	18,212,000	22,765,000	4,354,000	0.24
Loganberries—	lb.			
Av. 1940-44.....	1,864,000	1,864,000	143,000	0.08
1945.....	1,447,000	1,447,000	140,000	0.10
1946.....	1,637,000	1,637,000	222,000	0.14
1947.....	1,413,000	1,413,000	213,000	0.15
Grapes—				
Av. 1940-44.....	57,883,000	57,883,000	1,653,000	0.03
1945.....	66,012,000	66,012,000	2,543,000	0.04
1946.....	67,321,000	67,321,000	3,160,000	0.05
1947.....	73,803,000	73,803,000	3,568,000	0.05



### 33.—Values and Weight of Commercial Fruit Produced, by Provinces, 1945-47, with Five-Year Averages, 1940-44

Year	Nova Scotia	New Brunswick	Quebec	Ontario	British Columbia	Total
VALUES						
	\$	\$	\$	\$	\$	\$
Av. 1940-44.....	3,661,000	430,000	1,907,000	9,123,000	12,262,000	27,383,000
1945.....	1,449,000	531,000	953,000	9,567,000	19,770,000	32,270,000
1946.....	5,932,000	666,000	2,022,000	14,636,000	27,132,000	50,388,000
1947.....	2,851,000	631,000	3,548,000	14,181,000	25,400,000	46,611,000
WEIGHT						
	lb.	lb.	lb.	lb.	lb.	lb.
Av. 1940-44.....	191,251,000	12,600,000	49,968,000	260,100,000	336,005,000	849,924,000
1945.....	52,290,000	8,885,000	8,850,000	152,291,000	374,111,000	596,427,000
1946.....	273,916,000	15,956,000	48,862,000	281,854,000	573,925,000	1,194,513,000
1947.....	166,258,000	16,805,000	63,100,000	298,854,000	479,943,000	1,024,960,000

#### Subsection 9.—Special Agricultural Crops

**Maple Sugar and Syrup.**—Production of maple sugar and maple syrup is confined to the provinces of Nova Scotia, New Brunswick, Quebec and Ontario. The bulk of the crop comes from the Eastern Townships area of Quebec which is famous both in Canada and the United States as the centre of the maple industry. Usually most of the exports, which go chiefly to the United States, are in the form of sugar but during the 1947-48 season syrup shipments reached an all time high of 403,000 gal. Sugar shipments that season were equivalent to 463,000 gal. of syrup. During 1948-49 exports of syrup remained at the comparatively high level of 368,000 gal. Sugar exports, on the other hand, increased substantially to 5,826,000 lb. The exports of sugar, expressed in terms of syrup, equalled 583,000 gal.

### 34.—Estimated Quantities and Values of Maple Sugar and Maple Syrup Produced in Canada, 1943-48, and by Provinces, 1946-48

Province and Year	Maple Sugar			Maple Syrup			Total Value, Sugar and Syrup <sup>1</sup>
	Quantity <sup>1</sup>	Average Price per Pound	Value <sup>1</sup>	Quantity <sup>1</sup>	Average Price per Gallon	Value <sup>1</sup>	
	lb.	cts.	\$	gal.	\$	\$	\$
Nova Scotia—							
1946.....	20,000	42-0	8,000	6,000	3-50	21,000	29,000
1947.....	14,000	52-0	7,000	9,000	3-94	35,000	42,000
1948.....	16,000	46-0	7,000	8,000	4-08	33,000	40,000
New Brunswick—							
1946.....	68,000	42-0	29,000	10,000	3-77	38,000	67,000
1947.....	93,000	50-0	46,000	23,000	4-25	98,000	144,000
1948.....	124,000	49-0	61,000	12,000	4-28	51,000	112,000
Quebec—							
1946.....	2,448,000	27-0	661,000	1,638,000	2-92	4,783,000	5,444,000
1947.....	3,260,000	37-0	1,206,000	2,831,000	3-48	9,852,000	11,058,000
1948.....	2,187,000	34-0	744,000	1,750,000	3-49	6,108,000	6,852,000
Ontario—							
1946.....	7,000	35-0	2,000	235,000	3-15	740,000	742,000
1947.....	67,000	41-0	27,000	717,000	4-00	2,868,000	2,895,000
1948.....	23,000	35-0	8,000	389,000	3-93	1,529,000	1,537,000
Totals—							
1943.....	2,416,000	25-5	619,000	2,058,000	2-49	5,131,000	5,750,000
1944.....	2,207,000	26-7	591,000	2,870,000	2-95	8,466,000	9,057,000
1945.....	1,920,000	26-9	517,000	1,338,000	2-98	3,981,000	4,498,000
1946.....	2,543,000	27-5	700,000	1,889,000	2-96	5,582,000	6,282,000
1947.....	3,434,000	37-4	1,286,000	3,580,000	3-59	12,853,000	14,139,000
1948.....	2,350,000	34-9	820,000	2,159,000	3-58	7,721,000	8,541,000

<sup>1</sup> To nearest thousand.

Most of the syrup sold in Canada is marketed direct to the consumer by the producers in one-gallon cans but a considerable amount of both sugar and syrup is sold each year to processing firms. These firms melt the sugar and blend it with syrup to produce a uniform grade of syrup which is then sold in bottles.

**Sugar Beets and Beetroot Sugar.**—Sugar beets are grown in Quebec, Ontario, Manitoba and Alberta, six sugar-beet factories being located in these provinces. In Quebec, sugar beets have been grown only since 1942 and production centres around St. Hilaire, south of Montreal in the Eastern Townships. The area harvested in Quebec in 1947 was 1,600 acres although the plant at St. Hilaire has a capacity to handle production from 10,000 acres. In Ontario, sugar-beet factories are located at Wallaceburg and Chatham. The acreage in Ontario declined steadily from 38,169 in 1940 to only 9,287 in 1943. Since that year, however, the acreage has again expanded and in 1947, 18,600 acres were cropped, though production still remained well below the capacity of the two plants and only the Chatham factory processed beets in 1947. Sugar-beet production in Manitoba also declined during 1941-44. In 1940, the area harvested was 15,682 acres while in 1947 the area amounted to only 9,000 acres. The sugar-beet plant in Manitoba is located at Fort Garry. Sugar-beet production in Alberta is carried on in the neighbourhood of Raymond and Picture Butte. This area has seen a steady increase during the last six years with the acreage in 1947 amounting to 29,300 acres.

### 35.—Acreages, Yields and Values of Sugar Beets, and Quantities and Values of Refined Beetroot Sugar Produced, 1939-47

NOTE.—Figures for years prior to 1939 will be found in corresponding tables in previous editions of the Year Book.

Year	Sugar Beets					Refined Beetroot Sugar Produced		
	Seeded Area	Yield per Acre	Total Yield	Average Price per Ton	Total Value	Quantity	Value	Price per Pound
	acres	tons	tons	\$	\$	lb.	\$	cts.
1939.....	59,603	9.84	586,444	7.53	4,417,372	169,320,343	8,063,332	4.8
1940.....	82,270	10.03	825,344	7.30	6,022,670	213,602,511	10,853,665	5.1
1941.....	70,803	10.01	708,616	8.16	5,781,151	215,879,271	11,639,825	5.4
1942.....	64,768	10.84	701,884	9.17	6,434,517	189,066,870	11,349,746	6.0
1943.....	57,483	8.25	474,378	9.68	4,592,240	129,268,010	8,728,995	6.8
1944.....	70,446	8.02	564,927	9.91	5,598,393	165,318,840	11,281,052	6.8
1945.....	63,134	9.80	618,790	10.01	6,192,942	163,837,790	11,198,989	6.8
1946.....	71,939	10.23	735,849	10.91	8,030,859	205,779,800	14,022,621	6.8
1947.....	67,376	8.99	605,741	14.06	8,517,159	156,262,700	13,208,824	8.4

**Fibre-Flax.**—Fibre-flax is grown chiefly in Quebec and Ontario with smaller areas located in Alberta and British Columbia. In 1948 the producers in Quebec almost doubled their acreage but in the other provinces the acreage continued to show the downward trend that has been evident for the last few years. Uncertainty of markets and competition from other countries, where production costs are not

as high, have discouraged many growers who are now turning to more profitable enterprises. A recent development has been the sale of flax straw of oil varieties to firms in the United States where it is manufactured into cigarette paper.

### 36.—Acreages, Yields and Values of Flaxseed, Fibre and Tow, 1939-48

NOTE.—Figures for the years 1915-30 will be found at p. 284 of the 1934-35 Year Book, and for 1931-38 at p. 224 of the 1942 edition.

Year	Area	Production			Values			
		Seed	Fibre	Green Tow	Seed	Fibre	Green Tow	Total
	acres	bu.	lb.	tons	\$	\$	\$	\$
1939.....	10,536	63,216	4,079,600	2,230	245,700	914,100	89,200	1,249,000
1940.....	20,275	81,300	5,977,500 <sup>1</sup>	1,027	345,925	1,315,050 <sup>1</sup>	65,600	1,726,575
1941.....	44,467	137,930	11,000,000 <sup>1</sup>	755	482,750	2,597,500 <sup>1</sup>	37,750	3,118,000
1942.....	47,070	195,915	9,312,000	875	439,827	2,528,228	33,645	3,001,700
1943.....	35,297	157,957	8,742,000 <sup>2</sup>	815	631,828	1,970,400	48,900	2,651,128
1944.....	39,102	122,487	5,768,000	1,015	502,948	1,555,600	50,800	2,109,348
1945.....	21,557	68,747	6,000,000	650	343,700	1,775,000	42,300	2,161,000
1946.....	15,762	81,000	1,786,000	—	405,000	452,000	—	857,000
1947.....	11,003	50,000	1,852,000	—	300,000	482,000	—	782,000
1948.....	14,116	50,000	3,700,000	—	275,000	1,055,000	—	1,330,000

<sup>1</sup> Includes turbine tow.

<sup>2</sup> Includes estimated production from 8,040 acres carried over from previous processing year.

**Tobacco.**—The tobacco acreage expanded rapidly during the years 1943 to 1947 under the influence of an almost unlimited domestic and overseas demand. The high point was reached in 1947 when 125,267 acres were harvested. Traditionally the United Kingdom is Canada's largest export market but, since the imposition of import restrictions by the United Kingdom, this market has been very uncertain. The currency controls were somewhat relaxed to permit the importation of 12,500,000 lb. of Canadian tobacco during the 1947-48 season and during the 1948-49 season \$7,000,000 of British funds were made available for tobacco purchases in Canada. Additional payments were made to growers in Ontario and British Columbia for grading and tying as follows: 1½ cents per lb. for flue-cured tobacco in Ontario in 1943; 1½ cents per lb. for flue-cured and burley in Ontario from 1944 to 1947, inclusive, and on dark for 1946 and 1947; and 2 cents per lb. on flue-cured, burley and dark tobacco in Ontario and on flue-cured in British Columbia for 1948.

### 37.—Acreages, Production and Values of the Commercial Crop of Leaf Tobacco, 1944-48

NOTE.—Figures for years prior to 1944 will be found in corresponding tables in previous editions of the Year Book.

Year	Harvested Area	Average Yield per Acre	Total Production	Average Farm Price per Pound	Gross Farm Value
	acres	lb.	lb.	cts.	\$
1944.....	88,495	1,191	105,415,500	29.4	31,001,900
1945.....	93,277	990	92,345,000	33.2	30,620,000
1946.....	110,358	1,281	141,384,000	35.0	49,472,000
1947.....	125,267	852	106,688,000	35.1	37,460,000
1948.....	110,590	1,145	126,629,000	39.7	50,272,000



### 38.—Acreages, Production and Values of the Commercial Crop of Leaf Tobacco, by Provinces, 1943-47

NOTE.—Figures for the years 1934-38 will be found at p. 229 of the 1939 Year Book and for the years 1939-42 at p. 387 of the 1948-49 edition.

Year	Quebec			Ontario			British Columbia		
	Planted Area	Pro-duction	Value	Planted Area	Pro-duction	Value	Planted Area	Pro-duction	Value
	acres	'000 lb.	\$	acres	'000 lb.	\$	acres	'000 lb.	\$
1943.....	7,580	6,512	1,477,900	63,340	62,325	18,104,600	220	267	63,700
1944.....	8,984	8,898	2,413,800	79,359	96,375	28,550,000	152	143	38,100
1945.....	10,007	9,391	2,784,000	83,140	82,798	27,785,000	130	156	51,000
1946.....	11,821	11,695	3,383,000	98,386	129,519	46,034,000	151	170	55,000
1947.....	11,918	8,940	2,313,000	113,231	97,627	35,116,000	118	121	31,000

### 39.—Acreages, Production and Values of the Commercial Crop of Leaf Tobacco, by Main Types, 1943-47

NOTE.—Figures for years prior to 1943 will be found in corresponding tables in previous editions of the Year Book.

Type and Year		Planted Area	Average Yield per Acre	Total Production	Average Farm Price per Pound	Gross Farm Value
		acres	lb.	lb.	cts.	\$
Flue-cured.....	1943	60,120	978	58,785,800	30.0	17,638,700
	1944	73,697	1,176	86,669,000	30.7	26,634,100
	1945	77,200	976	75,353,000	34.9	26,311,000
	1946	91,432	1,302	119,027,000	36.6	43,554,000
	1947	103,694	838	86,863,000	37.1	32,210,000
Burley.....	1943	6,540	1,008	6,590,800	21.3	1,402,800
	1944	9,460	1,292	12,223,000	23.2	2,830,000
	1945	9,442	1,094	10,330,000	25.6	2,641,000
	1946	10,473	1,151	12,058,000	27.0	3,260,000
	1947	13,200	958	12,640,000	25.6	3,613,000
Cigar leaf.....	1943	2,650	857	2,270,000	15.0	340,500
	1944	2,400	1,240	2,976,000	21.0	624,900
	1945	3,093	1,067	3,300,000	24.2	800,000
	1946	4,165	1,305	5,435,000	25.8	1,405,000
	1947	4,238	880	3,729,000	22.6	844,000

**Apiculture.**—Honey production in Eastern Canada returned to more normal levels in 1947 after two years of unusually small crops. Farm prices reached an all-time high with the average for the crop amounting to 25 cents per lb. The pre-war export market for Canadian honey was the United Kingdom but since the War very little has moved in that direction. During the period of the sugar shortage, exports of honey were forbidden and the domestic market readily absorbed the crop. During the 1947-48 season when a surplus developed and shipments might have again been resumed, the United Kingdom government put exchange controls into effect which amounted to a virtual embargo against Canadian honey. In addition, prices being offered by importers were much lower than Canadian growers would accept, so that even with all restrictions removed shipments would not have been made.



**40.—Beekeepers and Colonies, Production and Values of Honey and Beeswax, 1939-47**

NOTE.—Figures for years prior to 1939 will be found in corresponding tables in previous editions of the Year Book.

Year	Bee-keepers	Colonies	Honey			Beeswax			Value of Honey and Wax
			Average Pro-duction per Hive	Total Production	Average Price per Pound to Pro-ducers	Total Value	Pro-duction	Value	
	No.	No.	lb.	lb.	cts.	\$	lb.	\$	\$
1939....	28,000	406,000	85	34,376,100	8-6	2,958,200	515,641	116,300	3,074,500
1940....	27,150	398,540	71	28,215,300	10-3	2,913,600	423,229	121,700	3,035,300
1941....	27,360	409,740	81	33,220,700	11-3	3,755,700	498,310	185,500	3,951,200
1942....	28,430	427,050	66	28,048,700	13-7	3,842,600	420,730	196,300	4,028,900
1943....	34,250	449,650	88	39,492,100	15-4	6,095,000	592,400	276,200	6,371,200
1944....	40,700	508,500	71	36,264,000	15-0	5,534,000	543,900	250,200	5,784,200
1945....	43,300	522,500	63	33,020,000	16-0	5,439,000	487,000	226,000	5,665,000
1946....	43,200	541,800	43	23,185,000	18-0	4,149,000	327,000	158,000	4,307,000
1947....	39,200	588,700	63	37,078,000	25-0	9,160,000	425,000	200,000	9,360,000

**41.—Honey Production, by Provinces, 1942-47**

Province	1942	1943	1944	1945	1946	1947
	lb.	lb.	lb.	lb.	lb.	lb.
Prince Edward Island.....	33,500	32,000	44,000	46,000	15,000	57,000
Nova Scotia.....	80,600	72,500	65,000	83,000	65,000	112,000
New Brunswick.....	225,000	232,200	185,000	104,000	109,000	142,000
Quebec.....	4,026,900	5,000,000	4,900,000	4,487,000	1,900,000	5,399,000
Ontario.....	11,760,000	19,212,000	15,022,000	9,095,000	5,685,000	12,290,000
Manitoba.....	3,142,000	4,503,000	5,271,000	4,860,000	4,810,000	5,180,000
Saskatchewan.....	4,947,100	5,364,600	4,376,000	7,328,000	3,953,000	6,232,000
Alberta.....	2,500,000	3,800,000	5,130,000	6,000,000	6,192,000	6,507,000
British Columbia.....	1,333,600	1,275,800	1,271,000	1,017,000	456,000	1,159,000
<b>Totals.....</b>	<b>23,048,700</b>	<b>39,492,100</b>	<b>36,264,000</b>	<b>33,020,000</b>	<b>23,185,000</b>	<b>37,078,000</b>

**Subsection 10.—Prices of Agricultural Produce**

Monthly prices of grain and monthly prices of live stock are shown in the "Quarterly Bulletin of Agricultural Statistics" published by the Dominion Bureau of Statistics, Ottawa.

**42.—Yearly Average Cash Prices per Bushel of Canadian Cereals—Basis, in Store at Fort William and Port Arthur—Crop Years Ended July 31, 1939-48**

NOTE.—Statistics for 1926-30 are given at p. 228 of the 1940 Year Book, and for 1931-38 at p. 225 of the 1942 edition.

Year Ended July 31—	Averages in Cents and Eighth of a Cent per Bushel				
	Wheat, <sup>1</sup> No. 1 N.	Oats, <sup>2</sup> No. 2 C.W.	Barley, <sup>2</sup> No. 2 C.W. —6 Row	Rye, No. 2 C.W.	Flaxseed, No. 1 C.W.
	cts.	cts.	cts.	cts.	cts.
1939.....	62/0	29/0	40/7	40/5	143/4
1940.....	76/4	35/5	45/0	59/7	172/3
1941.....	74/0	34/6	45/5	49/6	144/3
1942.....	76/5	49/1	61/4	60/1	158/1 <sup>3</sup>
1943.....	94/4	49/2	64/2	68/4	225 <sup>4</sup>
1944.....	135	67/3	79/6	115/4	250 <sup>4</sup>
1945.....	143/6	61/4	87/3	126/2	275 <sup>4</sup>
1946.....	175	61/4	84/6	223/7	275 <sup>4</sup>
1947.....	175	66/2	93/4	287/6	325 <sup>4</sup>
1948.....	175	90	119/7	374/5	550 <sup>5</sup>

<sup>1</sup> Average cash closing price Winnipeg Grain Exchange to Sept. 27, 1943. Thereafter, initial payments plus additional payments to producers. <sup>2</sup> Cash closing price Winnipeg Grain Exchange to July 31, 1943. Thereafter, prices of oats and barley remained at or near the ceiling prices until these were discontinued Oct. 22, 1947. Equalization payments to producers are included for the crop years 1943-44 to 1947-48 inclusive.

<sup>3</sup> During March the Canadian Wheat Board assumed control of Canadian flaxseed stocks and the price was held at \$1.64 for remainder of crop year. <sup>4</sup> Fixed price to growers. <sup>5</sup> \$5.00 fixed price plus 50 cents participation payment.

### 43.—Yearly Average Prices per Cwt. of Canadian Live Stock at Principal Markets, 1944-48

Item	Toronto					Montreal				
	1944	1945	1946	1947	1948	1944	1945	1946	1947	1948
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Steers, up to 1,050 lb., good.....	11-48	11-65	12-45	14-28	18-25	12-15	12-25	12-70	14-35	18-57
Steers, up to 1,050 lb., medium.....	11-01	10-90	11-80	13-38	17-76	11-09	11-15	11-60	12-96	17-73
Steers, up to 1,050 lb., common.....	9-61	9-80	10-80	12-21	16-35	9-28	9-50	10-00	10-64	13-90
Steers, over 1,050 lb., good.....	11-99	12-20	13-05	14-63	19-40	12-33	12-05	12-85	14-38	21-14
Steers, over 1,050 lb., medium.....	11-44	11-45	12-45	13-88	19-47	11-33	11-10	11-70	13-08	18-56
Steers, over 1,050 lb., common.....	10-87	10-70	11-70	12-85	19-20	9-45	9-30	10-20	10-68	13-17
Heifers, good.....	11-24	11-25	12-15	13-85	18-32	10-74	10-45	11-25	13-04	18-06
Heifers, medium.....	10-80	10-70	11-65	13-23	17-66	9-20	9-50	10-00	11-73	15-43
Calves, fed, good.....	12-57	12-55	13-05	14-50	19-10	12-43	12-65	13-05	14-35	18-06
Calves, fed, medium.....	11-89	11-85	12-50	13-62	18-63	10-93	9-90	11-55	12-12	16-75
Cows, good.....	8-77	9-10	10-15	11-10	15-18	8-69	9-30	9-75	10-95	14-74
Cows, medium.....	8-06	8-45	9-20	10-18	14-11	7-88	8-20	8-70	9-76	13-06
Bulls, good.....	8-61	9-15	10-45	11-40	16-53	8-19	9-10	10-00	11-32	15-08
Stocker and feeder steers, good.....	10-03	10-00	11-40	12-58	17-17	1	1	1	1	1
Stocker and feeder steers, common.....	8-59	8-90	10-25	11-01	15-78	1	1	1	1	1
Stock cows and heifers, good.....	8-23	8-40	10-00	7-00	12-01	1	1	1	1	1
Stock cows and heifers, common.....	6-93	7-45	8-25	8-23	9-50	1	1	1	1	1
Calves, veal, good and choice.....	14-55	14-70	15-70	16-24	23-66	14-12	14-60	15-10	15-41	22-22
Calves, veal, common and medium.....	11-18	11-80	12-75	13-58	19-10	9-91	10-70	12-45	12-65	16-65
Hogs, Grade B-1, dressed.....	17-25	17-90	19-85	22-04	29-96	17-26	18-20	20-05	22-29	30-02
Lambs, good handy weights.....	13-40	14-40	15-25	15-63	22-53	11-94	13-55	14-45	14-83	21-76
Lambs, common, all weights.....	8-60	9-80	11-45	12-05	15-71	7-16	9-40	9-45	10-15	16-26
Sheep, good handy weights.....	5-06	7-35	8-55	8-33	9-33	4-90	6-65	7-80	7-38	8-29
Item	Winnipeg					Edmonton				
	1944	1945	1946	1947	1948	1944	1945	1946	1947	1948
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Steers, up to 1,050 lb., good.....	11-15	11-40	12-00	13-55	18-39	11-24	11-40	11-75	13-01	18-01
Steers, up to 1,050 lb., medium.....	10-01	10-00	10-65	11-79	16-05	10-06	10-20	10-55	11-59	16-06
Steers, up to 1,050 lb., common.....	8-57	8-35	9-20	10-06	14-40	8-17	7-90	8-85	9-01	12-50
Steers, over 1,050 lb., good.....	11-13	11-40	12-05	13-44	18-29	11-14	11-35	11-90	13-26	17-33
Steers, over 1,050 lb., medium.....	10-01	10-00	10-75	11-65	16-46	10-09	10-15	10-60	11-78	15-04
Steers, over 1,050 lb., common.....	8-76	8-55	9-45	10-17	14-44	8-31	8-35	9-35	9-54	14-16
Heifers, good.....	10-06	10-05	10-55	11-96	17-10	10-11	10-20	10-45	11-42	16-58
Heifers, medium.....	9-03	8-75	9-30	10-40	15-01	8-88	8-85	9-35	10-13	13-69
Calves, fed, good.....	11-48	11-80	12-10	13-44	17-64	11-50	11-60	11-95	13-33	16-20
Calves, fed, medium.....	10-56	10-70	10-95	11-96	15-29	10-37	10-55	10-60	11-87	15-79
Cows, good.....	8-17	8-45	9-20	10-11	14-54	7-55	8-20	8-90	9-64	13-97
Cows, medium.....	7-13	7-30	7-95	8-85	13-26	6-49	7-05	7-80	8-41	12-13
Bulls, good.....	7-60	8-55	9-65	10-77	16-10	6-66	7-30	8-95	9-43	14-96
Stocker and feeder steers, good.....	8-54	8-85	10-20	10-95	17-91	8-44	8-75	9-80	10-59	15-80
Stocker and feeder steers, common.....	6-55	7-05	8-50	8-72	13-84	6-93	7-10	8-65	8-89	12-79
Stock cows and heifers, good.....	6-91	7-50	8-45	9-22	14-40	6-81	7-00	7-95	8-76	11-77
Stock cows and heifers, common.....	5-48	6-00	6-85	7-35	11-20	5-38	5-70	6-70	7-22	10-50
Calves, veal, good and choice.....	12-67	13-05	13-95	14-82	21-35	11-63	11-05	12-30	12-72	19-53
Calves, veal, common and medium.....	8-90	9-20	10-35	10-80	14-99	9-55	9-15	9-20	9-78	14-09
Hogs, Grade B-1, dressed.....	16-41	16-70	17-85	20-61	27-94	15-92	16-15	17-40	20-21	27-87
Lambs, good handy weights.....	11-07	12-25	13-45	13-96	20-86	10-62	11-25	12-25	13-01	18-32
Lambs, common, all weights.....	7-04	8-00	8-45	10-05	14-85	7-29	7-85	8-55	9-13	12-73
Sheep, good handy weights.....	3-32	5-65	7-25	6-34	7-11	5-52	6-15	7-35	6-69	8-54

<sup>1</sup> No sales reported.

### Subsection 11.—Census Statistics of Agriculture in the Prairie Provinces, 1921-46

Statistics illustrating the major changes that have taken place in agriculture in the Prairie Provinces for the quinquennial years 1921-46 will be found at pp. 390-396 of the 1948-49 edition of the Year Book.

### Subsection 12.—Statistics of the Newfoundland Census of Agriculture, 1945

The latest Census of Newfoundland and the Coast of Labrador was taken in 1945. This Census covered both population and agriculture. Tabulations, at the request of Newfoundland, were carried out at the Dominion Bureau of Statistics. Some data on these subjects have already been published in census bulletins and as further tabulations are made, additional information will be made available.

The Census of Agriculture ascertained the number of those cultivating land by census districts by size of holding and area of improved land. Information was gathered by census districts on the condition of land and the area, production, value and sales of crops. Enumeration was also made of farm machinery and equipment, horses, ponies, swine, sheep, goats, cattle, animal products, dogs and poultry.

Agriculture is not of first importance in Newfoundland but plays a part in the economy supplementary to fishing and logging. Less than 0.5 p.c. of the total land surface is devoted to agriculture and only 35,574 persons cultivated land compared with 39,539 in the Census of 1935.

The following statement gives final figures on agriculture in Newfoundland and the Coast of Labrador.

#### TENURE AND UTILIZATION OF CULTIVATED LAND IN NEWFOUNDLAND, CENSUS OF AGRICULTURE, 1945

<i>Size of Holdings—</i>	<i>No.</i>	<i>Utilization of Occupied Land—</i>	<i>acres</i>
Under 1 acre.....	15,909	Improved.....	62,642
1-4 acres.....	14,523	Grain.....	186
5-10 ".....	3,106	Hay.....	46,864
11-50 ".....	1,700	Potatoes.....	12,149
Over 50 ".....	336	Turnips.....	1,616
Total Holdings.....	35,574	Cabbage.....	1,548
		Other vegetables.....	216
		Fruit.....	63
<i>Number of Holdings by Area of</i>		Unimproved.....	74,633
<i>Improved Land—</i>		Pasture.....	14,280
Less than 1 acre.....	17,379	Woodland.....	60,353
1-4 acres.....	15,489	TOTAL AREA OF OCCUPIED LAND.....	137,275
5-10 ".....	2,201		
11-50 ".....	498		
Over 50 ".....	7		

#### NUMBER AND VALUE OF LIVE STOCK AND POULTRY IN NEWFOUNDLAND, CENSUS OF AGRICULTURE, 1945

	<i>No.</i>		<i>No.</i>
Horses.....	9,795	Cattle.....	22,944
Ponies.....	4,954		
Swine.....	11,443	TOTAL, LIVE STOCK...	146,533
Sheep.....	85,802	Hens and chickens.....	346,428
Goats.....	11,595		
TOTAL VALUE, LIVE STOCK AND POULTRY...\$8,359,753			



**Quantity and Value of Farm Products.**—Estimates were made at the time of the 1945 Census enumeration of the production and values of crops, live stock and animal products in 1944 calculated on average prices prevailing in 1945. The total value of 54,450 tons of hay, produced in 1944, was \$2,613,600, of 1,509,994 bu. of potatoes, \$2,113,992 and of 279,279 bu. of turnips and other root crops \$429,778 while 3,874 bu. of oats, wheat and barley harvested were valued at \$5,812. There were on farms, in 1944, 22,944 cattle valued at \$2,431,350, and 85,802 sheep at \$2,288,307. The estimated value of the 3,877,818 gal. of milk produced during the year, including goats' milk, was \$3,296,143 and the value of 456,926 lb. of butter produced, excluding that made by manufacturers, was \$251,309. Egg production amounted to 1,574,401 doz. valued at \$1,495,681.

### Subsection 13.—Agricultural Irrigation

A short article is given at pp. 375-379 of the 1947 Year Book on agricultural irrigation on the Canadian Prairies from its beginnings when early ranchers undertook to grow winter feed by diverting water from the smaller streams to irrigate meadow lands, to the new phase in irrigation development whereby the Federal Government, under the Prairie Farm Rehabilitation Act, 1935, undertook to construct large irrigation works on the Prairies and to provide assistance for individual projects, conduct surveys and prepare plans for various irrigation possibilities.

**Irrigation in the Prairie Provinces.**—Table 44 shows the larger irrigation developments in Alberta\*. In addition there are some 650 private individual projects authorized to irrigate an area of 75,370 acres. Table 45 shows the principal Prairie Farm Rehabilitation Act irrigation projects in Manitoba and Saskatchewan and Table 46 the irrigable and irrigated areas in British Columbia under the control of public and private organizations.

\* Prepared by B. Russell, Director of Water Resources, Department of Water Resources, Alberta.

**44.—Irrigation Development in Alberta, as at Oct. 31, 1948**

Project	Source of Supply	Area of Tract	Area Served by Existing Works	Area Irrigated in—	
				1947	1948
		acres	acres	acres	acres
Canada Land and Irrigation Company...	Bow River.....	200,000	55,000	40,100	40,738
New West Irrigation District <sup>1</sup> .....	Bow River.....	8,000	4,564	3,494	3,422
Western Irrigation District.....	Bow River.....	150,000	150,000	20,000	12,000
St. Mary and Milk River Development..	St. Mary River...	200,000	84,000	76,207	76,351
Magrath Irrigation District <sup>2</sup> .....	St. Mary River...	18,873	6,975	3,500	3,500
Raymond Irrigation District <sup>2</sup> .....	St. Mary River...	20,520	15,130	12,000	12,000
Taber Irrigation District <sup>2</sup> .....	St. Mary River...	33,200	21,500	19,141	17,720
Eastern Irrigation District.....	Bow River.....	1,500,000	250,000	168,580	172,200
Lethbridge Northern Irrigation District..	Oldman River....	220,782	97,261	57,434	55,374
United Irrigation District.....	Belly River.....	62,800	34,318	7,463	2,970
Mountain View Irrigation District.....	Belly River.....	6,400	3,569	3,300	3,300
Leavitt Irrigation District <sup>3</sup> .....	Belly River.....	15,500	4,631	1,300	1,500 <sup>4</sup>
Aetna Irrigation District <sup>3</sup> .....	Belly River.....	15,440	8,300	—	—
Little Bow Irrigation District.....	Highwood River..	10,014	200	—	—
<b>Totals.....</b>		<b>2,461,529</b>	<b>735,448</b>	<b>412,519</b>	<b>401,075</b>

<sup>1</sup> Water supplied through works of Canada Land and Irrigation Company.  
through the works of the St. Mary and Milk Rivers Development.  
of Mountain View District.

<sup>4</sup> Approximate.

<sup>2</sup> Water supplied through the works of the St. Mary and Milk Rivers Development.  
<sup>3</sup> Water supplied through works of Mountain View District.



45.—Principal P.F.R.A. Irrigation Projects in Manitoba and Saskatchewan, as at Mar. 31, 1949

NOTE.—Source: Department of Agriculture, Ottawa.

Project	Location	Description	Irrigable Area	Storage Capacity
			acres	acre ft.
<b>Manitoba—</b>				
Deadhorse Creek.....	Morden.....	Earthfill dam, completed 1941.....	100	1,200
<b>Totals, Manitoba<sup>1</sup>.....</b>			<b>100</b>	<b>16,265</b>
<b>Saskatchewan—</b>				
Cypress Lake Storage.	Southwest Sask.....	Development of storage and irrigation on Frenchman River Valley in southwestern Sask., storage dams to raise level of Cypress Lake for irrigation along Frenchman River; includes canal leading to Robsart-Vidora area.	—	80,000
Val Marie Irrigation District.....	Val Marie.....	Dam on Frenchman River and distributing works.	8,549	8,000
Eastend Irrigation District.....	Frenchman River, southwestern Sask.	Storage dam on Frenchman River and canals to rehabilitate and extend an old irrigation project.	2,500	1,300
Maple Creek.....	Maple Creek.....	Development of Maple, Gap and Downie Creeks flowing northward from Cypress Hills for irrigation and stockwatering.	4,000	23,260
Swift Current.....	Swift Current.....	Development of Swift Current Creek and tributaries for irrigation, stockwatering, municipal and domestic supply.	25,000	95,000
Qu'Appelle River Valley.....	On Qu'Appelle River from Moose Jaw east.	Development of Qu'Appelle River and tributaries for irrigation, stockwatering and domestic supply, ultimate irrigable acreage approximately 30,000 acres.	30,000	95,600
<b>Totals, Saskatchewan<sup>1</sup>.....</b>			<b>105,219</b>	<b>456,230</b>

<sup>1</sup> Includes other small projects.

**Irrigation in British Columbia.\***—The first right to the use of water for agricultural purposes in this Province was granted three months after the passing of an Act by the Imperial Government establishing the Crown Colony of British Columbia, in 1858.

Irrigation was used in these early years mainly for raising hay in valley bottom lands where it was easy to divert water out of the streams. By the end of the century, water was being conveyed to the benches and higher lands, especially where the climate and the benchlands were suitable for commercial fruit growing.

Companies were formed; large holdings were purchased and subdivided; and irrigation systems to supply them with water were constructed, largely with earth ditches and wooden flumes. Most of these irrigation systems have since been taken over and are operated by improvement districts, under the Water Act, or by municipalities. To-day, the large irrigation systems of the Province are good examples of hydraulic structures. Owing to the generally rugged topography, irrigation engineering has been faced in this Province with many difficult problems; agricultural development having of necessity to follow the rather narrow valleys does not lend itself to simple and cheap irrigation systems.

Due to the wide variations in climate and soil types found throughout the Province, three methods of irrigation are in use: (1) sprinkling, practised in fairly humid areas, where precipitation is moderate but insufficient during the growing

\* Prepared by J. E. Lane, Deputy Comptroller of Water Rights, Department of Lands and Forests, Victoria, B.C.

period; (2) delivery by ditch or flume, with distribution over the ground by furrows, used in general for fruit and vegetable crops; and (3) irrigation by flooding, common on hay meadows in stock-raising areas.

Most of the irrigation is by gravity supply, but pumping from lakes and rivers is also practised. Pumping is costly and only warrantable in favoured areas for the growth of high-priced specialty crops.

Estimates of irrigable and irrigated land are given in Table 46. About 85,000 acres are under water licence and capable of being irrigated; nearly 100,000 acres are irrigated by individual effort, the majority being hay and grain for stock-ranches and for field crops. In addition about 200,000 acres more could be brought under irrigation, but at a cost greater than that of existing works.

46.—Major Irrigation Projects in British Columbia, 1948

Project	Water Supply	Irrigable Area	Irrigated Area	Locality
		acres	acres	
<b>Provincial Irrigation System—</b>				
Southern Okanagan Lands Project.....	Okanagan River.....	5,000	4,200	Okanagan Valley
<b>Municipal Irrigation Systems—</b>				
Penticton Municipality.....	Penticton and Ellis Creeks.....	2,250	2,220	Okanagan Valley
Summerland Municipality.....	Trout and Eneas Creeks.....	3,800	3,420	" "
<b>Irrigation Districts—</b>				
Balfour.....	Laird Creek.....	240	150	Kootenay Valley
Barriere.....	Barriere River.....	225	129	North Thompson Valley
B.C. Fruitlands.....	Jameson and North Thompson River.....	3,200	2,800	North Thompson Valley.
Black Mountain.....	Belgo Creek.....	4,000	3,850	Okanagan Valley
Black Sage.....	Okanagan River.....	180	150	" "
Blueberry Creek.....	Blueberry Creek.....	250	40	Columbia Valley
Cawston.....	Similkameen River.....	500	257	Okanagan Valley
Covert.....	Fourth of July Creek.....	272	272	Near Grand Forks
Darfield.....	Lindquist Creek.....	363	200	North Thompson Valley
East Creston.....	Arrow Creek.....	1,400	1,160	Kootenay Valley
Ellison.....	Kelowna Creek.....	687	687	Okanagan Valley
Girouard.....	Swan Lake Creek.....	110	110	" "
Glenmore.....	Kelowna Creek.....	2,000	1,946	" "
Grand Forks.....	Kettle River.....	2,700	2,200	Kettle Valley
Heffley.....	Heffley Creek and North Thompson River.....	2,700	1,633	North Thompson Valley
Kaleden.....	Marron Creek.....	500	430	Okanagan Valley
Keremeos.....	Ashnola River and Keremeos Creek.....	1,020	960	Similkameen Valley
Malcolm Horie.....	Joseph Creek.....	200	150	Near Cranbrook
Merritt Central.....	Coldwater River.....	125	125	Nicola Valley
Naramata.....	Lequime and Robinson Creeks.....	950	867	Okanagan Valley
Okanagan Falls.....	Shuttleworth Creek.....	400	180	" "
Okanagan Mission.....	Bellevue (Sawmill) Creek, Okanagan Lake.....	750	670	" "
Oyama.....	Long Lake.....	350	350	" "
Peachland.....	Peachland Creek.....	450	400	" "
Renata.....	Dog Creek.....	200	140	Columbia Valley
Robson.....	Pass Creek.....	262	262	" "
Scotty Creek.....	Scotty Creek.....	863	863	Okanagan Valley
South East Kelowna.....	Hydraulic Creek.....	2,800	2,560	" "
Trout Creek.....	Trout Creek.....	350	300	" "
Vermilion.....	Kindersley Creek.....	800	400	Columbia Valley
Vernon.....	Coldstream and Jones Creeks.....	7,500	7,200	Okanagan Valley
Vinsulla.....	Knouff (Sullivan) Creek.....	298	155	Kamloops District
Westbank.....	Powers Creek.....	700	648	Okanagan Valley
Winfield and Okanagan Centre	Vernon Creek.....	2,000	1,823	" "
Wynndel.....	Duck Creek.....	500	450	Kootenay Valley
<b>Irrigation Companies—</b>				
Columbia Valley Irrigated Fruitlands Company.....	Bruce Creek.....	2,000	367	Columbia Valley
Woods Lake Water Company.....	Oyama Creek.....	792	792	Okanagan Valley

## Subsection 14.—International Agricultural Statistics

The following tables are based on statistics published by the Office of Foreign Agricultural Relations, United States Department of Agriculture, and give, by leading countries of the world, the acreages and production of wheat for the harvests of 1947 and 1948, oats, barley and corn for 1948, with averages for the years 1935-39.

North America was the world's leading producer of wheat, in both 1947 and 1948, with about 30 p.c. and 27 p.c., respectively, of the total world production. The United States alone produced nearly 24 p.c. of the total in 1947 and 20 p.c. in 1948. Although a large exporter of wheat, Canada produced only 5.9 p.c. and 6.1 p.c. of the world's total in the same two years.

In 1948 the Union of Soviet Socialist Republics was the second largest producing country with 16 p.c. of total world production. China, which held first place in Asia, was third in world production of wheat in the same year with 14 p.c. of total production.

Acreages sown to wheat in 1948 showed a slight increase of 4 p.c. over those of the previous year and total production increased by 625,500,000 bu.

The North American Continent also led in world production of oats and corn in 1948 with the United States producing 35 p.c. of total oats and 61 p.c. of corn. Asia was the leading continent for world barley production with 26 p.c. of the total, China contributing 14 p.c. The Union of Soviet Socialist Republics and the United States followed closely with 13.4 p.c. and 13.2 p.c., respectively.

## 47.—Estimated Acreages and Production of Wheat Harvested in 1947 and 1948 in Specified Countries, with Averages, 1935-39

Continent and Country	Acreages			Production		
	Average 1935-39	1947	1948	Average 1935-39	1947	1948
	'000 acres	'000 acres	'000 acres	'000 bu.	'000 bu.	'000 bu.
<b>North America—</b>						
Canada.....	25,595	24,260	24,106	312,399	341,758	393,345
Mexico.....	1,244	1,236	1,483	14,284	15,616	18,372
United States.....	57,293	74,389	71,904	758,629	1,367,186	1,288,406
<b>Totals, North America<sup>1</sup>..</b>	<b>84,000</b>	<b>99,940</b>	<b>97,550</b>	<b>1,086,000</b>	<b>1,724,560</b>	<b>1,701,000</b>
<b>Europe—</b>						
Albania.....	99	130	..	1,507	2,000	..
Austria.....	630	495	520	15,942	9,700	11,000
Belgium.....	402	220	385	16,150	6,500	15,983
Bulgaria.....	3,362	3,680	..	69,080	..	..
Czechoslovakia.....	2,175	2,140	2,146	57,000	..	..
Denmark.....	319	60	171	14,470	2,000	9,333
Ireland.....	225	580	540	7,689	17,000	18,500
Finland.....	230	398	412	6,100	7,600	9,781
France.....	12,560	9,250	11,100	286,510	150,000	300,000
Germany.....	4,250	..	..	147,000	..	..
Greece.....	2,150	2,086	2,071	30,205	21,245	28,292
Hungary.....	4,091	3,100	..	91,210	46,000	..
Italy.....	12,577	11,500	11,860	278,366	205,000	250,000
Luxembourg.....	47	20	40	1,215	450	1,100
Netherlands.....	333	212	244	15,217	7,500	11,235
Norway.....	80	86	94	2,391	2,020	2,800
Poland.....	3,260	..	..	74,000	..	..
Portugal.....	1,227	1,636	1,605	16,092	12,860	12,000
Roumania.....	6,900	..	..	112,000	..	..
Spain.....	11,253	9,625	9,640	157,986	110,000	120,000
Sweden.....	740	723	780	26,351	14,660	25,316
Switzerland.....	183	225	220	6,050	6,860	8,000
United Kingdom.....	1,843	2,163	2,279	62,361	62,250	85,000
Yugoslavia.....	5,400	..	..	97,700	..	..
<b>Totals, Europe<sup>1</sup>.....</b>	<b>74,350</b>	<b>64,660</b>	<b>68,990</b>	<b>1,593,000</b>	<b>1,020,000</b>	<b>1,465,000</b>
Union of Soviet Socialist Republics (Europe and Asia) <sup>1</sup> ..	104,000	73,000	95,000	1,240,000	850,000	1,025,000

<sup>1</sup>For footnote, see end of table, p. 456.



**47.—Estimated Acreages and Production of Wheat Harvested in 1947 and 1948 in Specified Countries, with Averages, 1935-39—concluded**

Continent and Country	Acreages			Production		
	Average 1935-39	1947	1948	Average 1935-39	1947	1948
	'000 acres	'000 acres	'000 acres	'000 bu.	'000 bu.	'000 bu.
<b>Asia—</b>						
Iran.....	4,191	..	..	72,128	70,737	74,000
Iraq.....	1,724	2,000	..	18,114	12,500	12,000
Lebanon.....	..	173	173	..	2,021	2,000
Palestine.....	533	..	..	3,244	..	..
Syria.....	1,363	2,084	2,132	19,485	14,838	23,883
Turkey.....	8,973	9,658	9,884	135,690	130,000	145,000
China.....	49,000	56,900	52,818	750,000	919,600	925,000
Manchuria.....	2,896	..	..	36,035	..	..
India.....	34,485	34,365	32,000	370,660	296,407	340,000
Japan.....	1,735	1,492	..	49,954	28,550	..
Korea.....	832	..	..	10,240	..	..
<b>Totals, Asia<sup>1</sup>.....</b>	<b>107,910</b>	<b>115,680</b>	<b>109,600</b>	<b>1,490,000</b>	<b>1,526,000</b>	<b>1,622,000</b>
<b>South America—</b>						
Argentina.....	15,834	11,656	12,000	221,769	245,000	170,000
Brazil.....	414	811	..	4,978	10,546	11,800
Chile.....	1,963	2,023	2,143	31,562	39,360	40,268
Peru.....	285	247	..	3,274	3,491	..
Uruguay.....	1,210	1,248	1,253	13,255	15,562	16,942
<b>Totals, South America<sup>1</sup>.....</b>	<b>20,470</b>	<b>16,510</b>	<b>17,010</b>	<b>281,000</b>	<b>319,000</b>	<b>249,000</b>
<b>Africa—</b>						
Algeria.....	4,184	3,700	3,731	35,201	28,000	45,000
Egypt.....	1,464	1,692	1,573	45,848	40,500	41,500
French Morocco.....	3,254	3,000	2,590	23,128	24,500	23,000
Tunisia.....	1,915	..	2,044	14,962	11,000	11,000
Union of South Africa.....	1,926	2,671	2,880	16,025	16,777	17,543
<b>Totals, Africa<sup>1</sup>.....</b>	<b>13,830</b>	<b>14,050</b>	<b>14,200</b>	<b>143,000</b>	<b>130,000</b>	<b>148,000</b>
<b>Oceania—</b>						
Australia.....	13,128	13,880	13,000	169,744	220,000	200,000
New Zealand.....	221	125	150	7,129	4,539	5,500
<b>Totals, Oceania.....</b>	<b>13,349</b>	<b>14,005</b>	<b>13,150</b>	<b>176,873</b>	<b>224,539</b>	<b>205,500</b>
<b>World Totals<sup>1</sup>.....</b>	<b>418,080</b>	<b>397,850</b>	<b>415,500</b>	<b>6,010,000</b>	<b>5,790,000</b>	<b>6,415,500</b>

<sup>1</sup> Estimated totals, which in the case of production are rounded to millions, include allowances for any missing data for countries shown and for other producing countries not shown.

**48.—Estimated Production of Oats, Barley and Corn Harvested in 1948, in Specified Countries, with Averages, 1935-39**

Continent and Country	Oats		Barley		Corn	
	Averages 1935-39	1948	Averages 1935-39	1948	Averages 1935-39	1948
	'000 bu.	'000 bu.	'000 bu.	'000 bu.	'000 bu.	'000 bu.
<b>North America—</b>						
Canada.....	338,071	358,807	88,882	155,018	7,010	12,417
Cuba.....	..	..	..	..	6,000	8,500
Guatemala.....	..	..	..	..	15,700	..
Honduras.....	..	..	..	..	3,717	..
Mexico.....	465	2,411	3,960	5,512	67,523	111,487
Nicaragua.....	..	..	..	..	1,500	3,100
United States.....	1,045,329	1,491,752	238,622	317,037	2,315,554	3,650,548
<b>Europe—</b>						
Albania.....	..	..	..	..	5,067	..
Austria.....	28,746	19,000	13,087	7,800	6,384	..
Belgium.....	40,946	36,500	3,570	11,000	..	..
Bulgaria.....	7,966	..	17,400	..	31,173	..
Czechoslovakia.....	85,000	..	51,800	..	11,300	..
Denmark.....	70,205	68,000	52,881	67,000	..	..
Ireland.....	39,265	54,000	5,413	6,500	..	..



## 48.—Estimated Production of Oats, Barley and Corn Harvested in 1948, in Specified Countries, with Averages, 1935-39—concluded

Continent and Country	Oats		Barley		Corn	
	Averages 1935-39	1948	Averages 1935-39	1948	Averages 1935-39	1948
	'000 bu.	'000 bu.	'000 bu.	'000 bu.	'000 bu.	'000 bu.
<b>Europe—continued</b>						
Finland.....	45,000	43,024	7,900	9,347	..	..
France.....	328,653	235,000	53,015	57,500	22,559	14,800
Germany.....	315,000	..	130,000	..	4,000	..
Greece.....	8,479	10,334	9,267	8,727	10,078	9,015
Hungary.....	20,042	..	30,178	..	92,007	..
Italy.....	38,980	36,000	10,182	11,000	112,752	102,000
Luxembourg.....	2,910	2,427	..	..	..	..
Netherlands.....	25,769	21,700	5,934	6,500	..	..
Norway.....	12,940	12,000	5,467	4,100	..	..
Poland.....	204,000	..	76,000	..	..	..
Portugal.....	6,555	6,500	1,783	3,500	13,083	14,750
Roumania.....	37,500	..	28,000	..	172,000	..
Spain.....	39,369	38,000	97,059	80,000	28,955	22,000
Sweden.....	87,198	53,944	9,951	8,869	..	..
Switzerland.....	1,593	4,134	430	2,189	..	..
United Kingdom.....	138,628	205,660	36,596	94,220	..	..
Yugoslavia.....	21,900	..	18,800	..	176,600	..
Union of Soviet Socialist Republics (Europe and Asia).....	1,165,000	780,000	425,000	320,000	170,000	..
<b>Asia—</b>						
Burma.....	..	..	..	..	1,640	..
China.....	59,608	54,802	347,000	341,178	262,000	260,151
French Indo-China.....	..	..	..	..	21,168	..
India.....	..	..	103,619	122,262	108,000	80,000
Iran.....	..	..	35,728	40,000	..	..
Iraq.....	..	..	31,677	27,000	..	..
Japan.....	11,481	..	65,436	..	3,017	..
Java and Madura.....	..	..	3,238	..	79,976	..
Korea.....	2,718	..	52,096	..	4,177	..
Lebanon.....	..	..	..	1,222	..	..
Manchuria.....	..	..	6,462	..	86,586	..
Palestine.....	..	..	3,238	..	..	..
Philippine Islands.....	..	..	..	..	16,857	20,668
Syria.....	662	..	15,386	13,779	..	..
Turkey.....	16,893	21,000	96,129	90,000	22,971	23,621
<b>South America—</b>						
Argentina.....	50,182	48,000	25,586	30,000	301,986	200,000
Brazil.....	..	..	..	..	215,153	..
Chile.....	7,670	5,682	5,041	3,986	2,496	..
Colombia.....	..	..	..	..	15,276	..
Uruguay.....	3,100	2,976	649	1,128	5,188	..
<b>Africa—</b>						
Algeria.....	10,859	10,800	33,132	41,000	..	..
Angola.....	..	..	..	..	13,084	..
Basutoland.....	..	..	..	..	2,822	..
Belgian Congo.....	..	..	..	..	5,000	..
Egypt.....	..	..	10,697	7,644	63,229	..
French Morocco.....	2,751	3,593	53,279	58,500	8,505	13,287
French West Africa.....	..	..	..	..	21,473	..
Kenya.....	..	..	..	..	3,350	..
Madagascar.....	..	..	..	..	3,969	..
Southern Rhodesia.....	..	..	..	..	5,923	..
Tunisia.....	1,674	550	9,048	4,500	..	..
Union of South Africa.....	6,966	10,500	1,555	1,800	80,132	..
<b>Oceania—</b>						
Australia.....	23,351	33,000	11,651	17,000	7,030	..
New Zealand.....	3,539	3,500	952	2,083	318	400
<b>World Totals<sup>1</sup></b>	<b>4,364,000</b>	<b>4,230,000</b>	<b>2,363,000</b>	<b>2,395,000</b>	<b>4,750,000</b>	<b>5,975,000</b>

<sup>1</sup> Estimated world totals include allowances for any missing data for countries shown and for other producing countries not shown.

# CHAPTER XII.—FORESTRY\*

## CONSPPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

The forests of Canada cover a vast region in the north temperate climatic zone, reaching from the Atlantic Ocean to the Pacific; they extend northward from the International Boundary to beyond the Arctic Circle. Wide variations in climatic, physiographic and soil conditions cause marked differences in the character of the forests in different parts of the country, whereby more or less well-defined forest regions may be recognized.

### Section 1.—Forest Regions

At pp. 184-188 of the 1941 edition of the Year Book the forest regions of Canada are separately described, together with the dominant and associated tree species common to each.

### Section 2.—Important Tree Species

In Canada there are more than 170 tree species of which 35 are conifers, commonly called "softwoods". While the number of deciduous or "hardwood" species is large, only about a dozen of these are of much commercial importance in the lumber trade, and about 80 p.c. of the volume of merchantable timber is made up of softwoods.

A short description of the individual tree species is given at pp. 384-387 of the 1947 Year Book. For more detailed information on Canadian trees refer to the Dominion Forest Service Bulletin No. 61, *Native Trees of Canada*,† published by the Department of Mines and Resources.

### Section 3.—Forest Resources

The forested area of Canada (exclusive of Newfoundland) is estimated at 1,290,960 sq. miles, or 37 p.c. of the total land area. In comparison, only 16 p.c. of the land area is considered to be of present or potential value for agriculture, and only 7 p.c. is now classed as "improved and pasture". The forested area within the boundaries of the nine provinces totals 1,167,960 sq. miles, or 58 p.c. of the provincial land area. About 478,000 sq. miles of the existing forests are classed as "unproductive". These unproductive forests are made up of small trees which cannot be expected to reach merchantable size because they are growing on poorly

\* Sections of this Chapter that deal with forestry and forest administration have been prepared by the Economics Division, Dominion Forest Service, Department of Mines and Resources. Sections dealing with forest utilization and forest industries, except as otherwise noted, have been revised in the Forestry Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

† Obtainable from the King's Printer, Ottawa. Price \$1.50.

drained lands, or at high altitudes, or are subject to other adverse site conditions. They perform valuable functions, however. They help to protect watersheds and conserve water supplies; they provide fuel and building materials to natives and travellers in remote areas; and they are the habitat of valuable fur-bearing and game animals.

The productive forests covering more than 813,000 sq. miles are considered capable of producing continuous crops of timber suitable for domestic and industrial purposes. A considerable proportion of these forests is not yet accessible for commercial operations, but constitutes a valuable reserve for the future. About 435,000 sq. miles of productive forests are considered to be economically accessible at the present time. One-half of the productive forest area bears trees large enough for use as sawlogs, pulpwood or fuelwood, and the other half is occupied by young growth of various ages, kinds and degrees of stocking.

### CLASSIFIED FORESTED LANDS

NOT INCLUDING NEWFOUNDLAND WHERE DATA ARE NOT YET AVAILABLE

#### TOTAL FORESTED AND NON-FORESTED LANDS

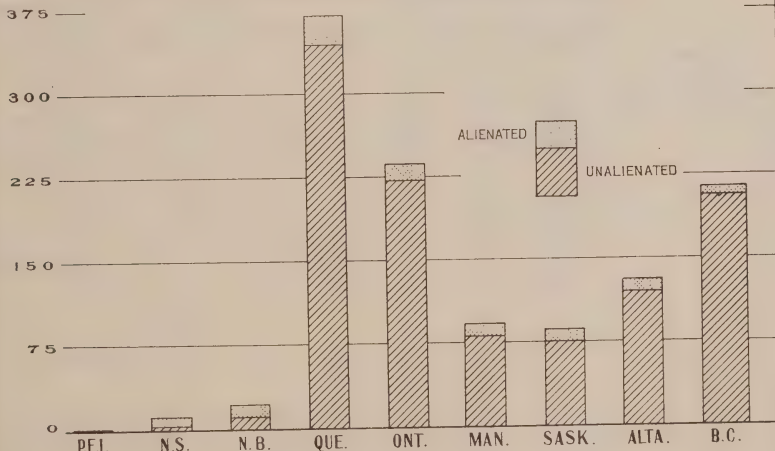
Merchantable forest shown in heavy shading



THOUSAND  
SQUARE  
MILES

#### ALIENATED AND UNALIENATED FOREST LANDS, BY PROVINCES

Forest Lands in P.E.I. amount to only 610 sq. miles, 608 of which is alienated



The total stand of timber of merchantable size is estimated to be 311,201,000,000 cu. ft., of which 191,347,000,000 cu. ft. is accessible. These cubic volumes are volumes of wood that can actually be used. Expressed in commercial terms, the accessible timber is made up of 250,250,000,000 bd. ft. of logs in trees large enough to produce sawlogs and 1,684,710,000 cords of smaller material suitable for pulpwood, fuelwood, posts, mining timbers, etc.

**Resources of Newfoundland.**—The entrance of Newfoundland into Confederation on Mar. 31, 1949, resulted in an appreciable increase to Canada's forested area. It is estimated that more than 16,000 sq. miles of the Island of Newfoundland is covered with forest, of which approximately 76 p.c. is privately owned. In Labrador, an area of about 112,000 sq. miles, no estimate of the forest resources is as yet available. Some of the forests have been leased, but the greater part of these are still controlled by the Crown.

The establishment of two large pulp and paper mills in recent years has emphasized the increasing importance of Newfoundland's forests as a source of income. Total forest production in 1946 was 121,819,000 cu. ft., which included 62,000,000 ft. b.m. of sawn lumber. Newsprint production in 1948 was 382,248 tons, of which 98 p.c. was exported.

The Province of Newfoundland, like the other provinces, administers its own resources. The Dominion Forest Service, on the invitation of the Newfoundland Provincial Government, has already delegated officers to advise on matters pertaining to the protection and development of Newfoundland's forests. This involves an up-to-date inventory of the forest resources, the protection of the forests from fire, and the organization of a program of economic and silvicultural research aiming towards an adequate and continuous supply of forest products.

**1.—Estimate of Total Stand of Timber in Canada, by Type and Size, and by Provinces and Regions**

Province and Region	Conifers			Broad-Leaved			Totals		
	Saw Material	Small Material	Total Equivalent Volume <sup>1</sup>	Saw Material	Small Material	Total Equivalent Volume <sup>1</sup>	Saw Material	Small Material	Total Equivalent Volume <sup>1</sup>
Accessible	Million ft. b.m.	'000 cords	Million cu. ft.	Million ft. b.m.	'000 cords	Million cu. ft.	Million ft. b.m.	'000 cords	Million cu. ft.
Newfoundland.....	.. 65	.. 560	.. 61	.. 40	.. 240	.. 28	.. 105	.. 800	.. 89
Prince Edward Island..	4, 850	23, 165	2, 939	1, 600	5, 940	825	6, 450	29, 105	3, 764
Nova Scotia.....	6, 000	50, 000	5, 450	3, 000	30, 000	3, 150	9, 000	80, 000	8, 600
New Brunswick.....	41, 110	453, 330	46, 755	14, 390	176, 120	17, 848	55, 500	629, 450	64, 603
Quebec.....	42, 560	273, 790	31, 784	11, 390	286, 140	26, 600	53, 950	559, 930	58, 384
Ontario.....									
TOTALS, EASTERN PROVINCES.....	94, 585	800, 845	86, 939	30, 420	498, 440	48, 451	125, 005	1, 299, 285	135, 440
Manitoba.....	855	9, 645	991	1, 620	19, 110	1, 948	2, 475	28, 755	2, 939
Saskatchewan.....	1, 850	8, 920	1, 128	2, 100	51, 060	4, 760	3, 950	59, 980	5, 888
Alberta.....	7, 000	74, 400	7, 724	2, 080	36, 000	3, 476	9, 080	110, 400	11, 200
TOTALS, PRAIRIE PROVINCES.....	9, 705	92, 965	9, 843	5, 800	106, 170	10, 184	15, 505	199, 135	20, 027
British Columbia—									
Coast.....	76, 110	13, 925	14, 503	3	3	..	76, 110	13, 925	14, 503
Interior.....	33, 630	172, 365	21, 377	3	3	..	33, 630	172, 365	21, 377
TOTALS, BRITISH COLUMBIA.....	109, 740	186, 290	35, 880	3	3	..	109, 740	186, 290	35, 880
TOTALS, ACCESSIBLE <sup>2</sup> .....	214, 030	1, 080, 100	132, 712	36, 220	604, 610	58, 635	250, 250	1, 684, 710	191, 347
TOTALS, INACCESSIBLE <sup>2, 4</sup> .....	176, 345	873, 385	107, 531	3, 700	136, 260	12, 323	180, 045	1, 009, 645	119, 854
Grand Totals <sup>2</sup> .....	390, 375	1, 953, 485	240, 243	39, 920	740, 870	70, 958	430, 295	2, 694, 355	311, 201

<sup>1</sup> Cubic volumes do not include wood in stumps and unusable tops.

<sup>2</sup> Exclusive of Newfoundland.

<sup>3</sup> There are no available estimates of the relatively small quantities of hardwoods in British Columbia.

<sup>4</sup> Including estimates of stands in the Northwest Territories and Yukon.



## Section 4.—Forest Depletion and Increment

The purpose of this Section is to present a general account of depletion and increment. Details of the scientific control of those influences that account for wastage, viz., forest fires and insect pests, are dealt with in the section on Forest Administration at pp. 465-466 and 469. A special article on Noxious Forest Insects and Their Control appears at pp. 389-400 of the 1947 Year Book.

**Depletion.**—The average annual rate of depletion of reserves of merchantable timber during the ten years 1937-46, by cause, is given in Table 2. Of the total depletion, 76 p.c. was utilized and 24 p.c. was destroyed by fire, insects and disease. The utilization of 2,510,556,000 cu. ft. comprised 38 p.c. as logs and bolts, 29 p.c. as pulpwood, 29 p.c. as fuelwood, and the remaining 4 p.c. as miscellaneous products. Approximately 7 p.c. of the utilization was exported in unmanufactured form.

One factor that indirectly affects forest depletion is the more efficient utilization of timber that has been cut. There is little doubt that in the past too high a percentage of the sawn logs has been discarded. Changes of great significance are taking place in the uses of wood that permit of the utilization of sizes and qualities that are unmerchantable as sawn lumber. The development of the cellulose industry in the manufacture of rayon, cellophane and numerous other products, is rapidly extending the use of wood. Plastic-wood products, fibre board and laminated wood will undoubtedly provide an increasing demand for the so-called inferior classes of wood so that more complete utilization of the forest resources through the elimination of much of the waste that now occurs can be expected. (See Sect. 6, Forest Utilization, pp. 470-479.)

2.—Average Annual Forest Depletion During the Period 1937-46

Item	Usable Wood	Percentages of—	
		Utilization or Wastage	Depletion
	M cu. ft.		
<b>Products Utilized—</b>			
Logs and Bolts—			
Domestic use.....	929,598	37.0	28.1
Export.....	33,612	1.3	1.0
Pulpwood—			
Domestic use.....	590,875	23.5	17.9
Export.....	144,150	5.8	4.4
Fuelwood.....	718,964	28.6	21.8
Hewn railway ties.....	12,650	0.5	0.4
Pit props.....	14,394	0.6	0.4
Poles, posts, rails.....	33,957	1.4	1.0
Miscellaneous products.....	32,356	1.3	1.0
<b>Annual Utilization.....</b>	<b>2,510,556</b>	<b>100.0</b>	<b>76.0</b>
<b>Wastage—</b>			
By forest fires.....	292,583	36.9	8.9
By insects and diseases.....	500,000	63.1	15.1
<b>Annual Wastage.....</b>	<b>792,583</b>	<b>100.0</b>	<b>24.0</b>
<b>Annual Depletion.....</b>	<b>3,303,139</b>	<b>...</b>	<b>100.0</b>

**Increment.**—Practically all the depletion or drain on the forest is concentrated in the 435,000 sq. miles of productive forest classed as accessible, and replacement of normal depletion by this area alone requires an average annual growth rate of about 12 cu. ft. per acre. Complete estimates of the rates at which

the forests of Canada grow are not yet available. The vast size of the country, the diversity of growing conditions, and the complex character of the forests themselves, place great difficulties in the way of estimating growth. Numerous studies have been made by the Dominion Forest Service which indicate, beyond reasonable doubt, that over considerable tracts annual growth exceeds 25, 30 or even 40 cu. ft. per acre per annum; however, there are other areas classed as productive on which the growth is much less.

Natural reproduction of forest tree species in Canada is fortunately prolific except in a few localities. After an area has been cutover or burned, young growth usually appears within a short time. Thus the re-establishment of some sort of forest growth is a less difficult problem than it is in many other countries. There is, however, no guarantee that the species reproduced will be of the kinds desired by industry. Most of the wood used in Canada is softwood and, in general, softwood reproduction is fairly good; but there are considerable areas in which a combination of overcutting and repeated fires have resulted, not in the permanent destruction of the forest, but in the replacement of valuable stands by new ones of inferior type.

Many stands of 'second growth' that have come up after cutting or fire are now reaching merchantable size and are beginning to attract attention. Anticipating the need for practical guidance in the management of these accessible young forests, the Dominion Forest Service is devoting the major efforts of various forest experiment stations to the improvement of the quality and the acceleration of the growth of young stands that nature has established. Operators, too, are showing more interest in putting their operations on a self-sustaining basis and working plans are being developed with this in view.

There is no room for doubt that the introduction of better methods of forest management, including the provision of more adequate forest protection, can make the forests of Canada more productive than they have ever been. It is true that stocks of very large trees, whose growth required upwards of 300 years, are disappearing and will not be replaced; but, though the forest industries of the future must use smaller logs than did those of the past, good forest management can make possible a considerable expansion of those industries when market conditions warrant.

The potential capacity of many forest soils to produce more usable wood in a given period than they have ever done in the past is already being demonstrated on such areas as the Dominion Forest Experiment Station at Petawawa, Ont., and on some of the better-managed farm woodlots.

## **Section 5.—Forest Administration**

### **Subsection 1.—Administration of Federal and Provincial Timber-Lands**

The forest resources of Canada as a whole are owned and administered by the provinces. The Federal Government, however, is responsible for the administration of those of the National Parks, Forest Experiment Stations, and Yukon and the Northwest Territories.

The general policy of the Federal Government and the Provincial Governments has been to dispose of the timber by means of licences to cut, rather than to sell timber-land outright. Under this system, the State retains ownership of the land and control of cutting operations. Revenue is received in the form of Crown dues or stumpage (either in lump sums or in payments made as the timber is cut); ground rents and fire-protection taxes are collected annually. Both ground rent and Crown dues may be adjusted at the discretion of the Governments.

The Maritime Provinces did not adopt this policy to the same extent as did the rest of Canada. In Prince Edward Island practically all the forest land has been alienated and is in small holdings, chiefly farmers' woodlots. In Nova Scotia 71 p.c. of the forest land is privately owned; nearly one-half of this is in holdings exceeding 1,000 acres. In New Brunswick nearly 50 p.c. is under private ownership. The percentages of privately owned forest land in the other provinces are as follows: Quebec, 7 p.c.; Ontario, 6 p.c.; Manitoba, 13 p.c.; Saskatchewan, 12 p.c.; Alberta, 8 p.c.; and British Columbia, 3 p.c.

### 3.—Forest Reserves in Canada, by Provinces, 1948

NOTE.—Areas of National and Provincial Parks (which are also forest reserves) are not included in this table, but may be found at pp. 22-31.

Province	Dominion Forest Experiment Stations	Provincial Forest Reserves	Total
	sq. miles	sq. miles	sq. miles
Prince Edward Island.....	—	—	—
Nova Scotia.....	—	—	—
New Brunswick.....	35.16	268.00	303.16
Quebec.....	7.25	5,615.00	5,622.25
Ontario.....	97.10	19,526.00	19,623.10
Manitoba.....	25.25 <sup>1</sup>	3,799.09	3,799.09
Saskatchewan.....	—	14,145.42	14,145.42
Alberta.....	62.60	14,329.00	14,391.60
British Columbia.....	—	33,971.05	33,971.05
<b>Totals.....</b>	<b>202.11</b>	<b>91,653.56</b>	<b>91,855.67</b>

<sup>1</sup> Under National Park reservation and therefore not included in total.

**Forest Lands under Federal Control.**—The forests under Federal control are administered by the Department of Mines and Resources. The National Parks Bureau has charge of the National Parks, and the Bureau of Northwest Territories and Yukon Affairs administers the timber in those areas. The Indian Affairs Branch administers, in trust for the Indians, the timber within their reservations. The Dominion Forest Service has charge of the Forest Experiment Stations.

**Recent Advances in Forest Management Programs.**—During recent years an increasing interest has been shown by governments and industry alike in programs to stimulate production and at the same time perpetuate Canada's forest resources. The Ontario Forest Management Act requires timber operators on Crown Lands to submit forest inventories of their cutting areas, and to prepare management plans covering operations for a stated period (see p. 464). Continuity of tenure, which is essential to the successful operation of a sustained-yield program, is assured by an amendment to the Crown Timber Act that permits the Minister to enter into long-term timber concession agreements concerning all species of timber. The same amendment establishes a Forest Development Fund of \$2,500,000 for the building of forest roads and bridges intended for the more economical harvesting of forest products.

Saskatchewan has demonstrated the necessity for conservation of its forest resources by curtailing the annual cut to an amount approximating 5 p.c. of the estimated stand of merchantable spruce saw-timber in each particular district.

In British Columbia the granting of forest management licences under authority of the 1947 amendment to the Forest Act will, undoubtedly, lead to a great improvement in forestry practice in that Province. One company has recognized the need for long-term planning by the establishment of an experimental demonstration forest to study the problems involved in thinning, selective cutting and reforestation in stands of immature timber.



The Provinces of Nova Scotia, New Brunswick and Ontario have each appointed an Advisory Committee composed of representatives of the Provincial Government, the forest industries, and other organizations interested in the welfare of the forests, so that all forest problems might be discussed and a concerted effort made to solve them for the benefit of all.

Another aspect of forest management that is being favourably regarded is that of building up more accurate inventory records of forest resources as dealt with below.

**National Forest Inventories.**—Following the War many of the provincial forest services have been particularly active in their programs of forest inventory. The Department of Lands and Forests of Ontario has made great strides in its five-year plan of forest inventory covering a strip of country which comprises about 125,000 sq. miles of the forested lands of the Province. The plan includes the taking of air photographs with the particular purpose of building up inventory records, the preparation of a basic map, and finally the production of forest inventory maps from air photographs supported by field sampling.

The use of air photographs for forestry purposes is a comparatively new field in which progress has been made both in research and practice (see p. 468). The Dominion Forest Service has been continuing its work in the development of special techniques for the use of air photographs and, at the same time, has carried on the forest mapping of federally administered lands and other territories of direct concern to Canada. Mention may be made, for example, of the forest inventory maps which are being prepared from air photographs in the case of the Eastern Rockies Forest Conservation Area, where fire protection is of paramount importance. Data are being collected on the ground to support the interpretation of the photographs and the development of instrumental aids is being continued.

**Timber Control.**—Federal timber control established during the war years is still being maintained in 1949. Its function is to regulate the volume of exports in order to ensure that a sufficient quantity of lumber is available to take care of domestic requirements. An outline of the controls applied to meet the dislocation in the lumber industry during the war years is given at pp. 277-280 of the 1946 Year Book.

**Forestry and FAO.**—Canada has undertaken to co-operate in the forestry work of the Food and Agriculture Organization of the United Nations. The functions of the Organization as they concern forestry are outlined at pp. 264-265 of the 1946 Year Book.

**Forest Lands under Provincial Control.**—With the exception of relatively small areas owned by the Federal Government, the Crown lands and the timber on them are administered by the provinces in which they lie. As new regions are explored, their lands are examined and the agricultural land disposed of. Land suitable only for forest is set aside for timber production, and the policy of disposing of the title to lands fit only for the production of timber has been virtually abandoned in every province of Canada. Efforts are being made, especially in Quebec and Ontario, to encourage the establishment and maintenance of forests on a community basis. Information regarding forest administration in the individual provinces is given at pp. 234-236 of the 1942 Year Book.

**Royal Commissions on Forestry.**—The Provinces of British Columbia, Saskatchewan and Ontario appointed Royal Commissions to study all phases of the forestry situation in their respective provinces in 1944, 1945 and 1946. The recommendations of these Commissions are described briefly at pp. 410-411 of the 1948-49 Year Book.



Although Royal Commissions to study this problem have not been considered necessary in the other provinces, forestry problems are receiving close attention from governments and from industry, and steps are being taken to improve and strengthen administrative and protective services.

### Subsection 2.—Forest-Fire Protection

The Federal Government is responsible for fire-protection measures in the forests under its administration—chiefly those of Yukon and the Northwest Territories, the National Parks, Indian Lands, and Dominion Forest Experiment Stations. Each of the Provincial Governments, except that of Prince Edward Island, maintains a fire-protection organization co-operating with owners and licensees for the protection of all timbered areas, the cost being distributed or covered by special taxes on timber-lands.

In each province, with the exception just mentioned, provincial legislation regulates the use of fire for clearing and other legitimate purposes, and provides for close seasons during dangerous periods. An interesting development in this connection in the Province of Quebec is the organization of a number of co-operative protective associations among lessees of timber-limits. These associations have their own staffs, which co-operate with those of the Board of Transport Commissioners and the Provincial Government. The latter contributes money grants, and also pays for the protection of vacant Crown lands lying within the area of the associations' activities. In the Province of Newfoundland, responsibility for the protection of most licensed timber-lands is vested in the lessees. In addition, the Newfoundland Forest Protection Association, maintained jointly by the government and industry, carries out certain important fire-control functions.

In the matter of forest-fire protection along railway lines, the provincial services are assisted by the Dominion Railway Act administered by the Board of Transport Commissioners. This Act gives to that body wide powers relating to fire protection along railway lines under its jurisdiction. Certain officers of the various forest authorities are appointed ex-officio officers of the Board of Transport Commissioners and co-operate with the fire-ranging staffs which the railway companies are required to employ under the Dominion Railway Act.

In many districts in Canada, radio-equipped aircraft are used to good effect for the detection and suppression of forest fires. Where lakes are numerous, seaplanes or flying boats can be used for detection, and for the transportation of fire-fighters and their equipment to fires in remote areas. In Western Canada, equipment and supplies are sometimes dropped by parachute to isolated fire crews; in one province parachutists are now employed to fight fires which are difficult of access by other means.

In the more settled areas with better transportation facilities, fire detection is carried out by means of lookout towers fitted with telephone or radio for reporting fires. Field staffs and equipment are maintained at strategic points ready to deal with fires when they are reported. These staffs, when not engaged on fire control duties, are employed on the construction and maintenance of roads, trails, telephone lines, fire guards and other necessary improvements.

Portable gasoline pumps, which usually weigh between 60 and 100 lb. each, and linen hose are important equipment. These pumps can be carried to a fire by canoe, motor-boat, automobile, aircraft, pack-saddle or back-pack and can provide

hose pressures up to 200 lb. per square inch, depending upon the elevation above and distance from the water supply. Hose lines over a mile in length are frequently used. Small hand-pumps supplied by 5-gallon portable containers are also used effectively in many cases. Tractors equipped with bulldozers or ploughs are commonly used for fire-line construction. In some regions, trucks, fitted with water tanks and power pumps are employed for the control of fires adjacent to roads.

In addition to these improved measures, the enactment of legislation has tended to reduce the fire menace. The establishment of close seasons for brush-burning, and seasons during which permits are required for setting out fires and for travel in the forests during dangerous dry periods, have been of enormous value as preventive measures. Education of the public as to the need for care with fire is, however, the basic method of reducing the large number of fires which occur each year as a result of man's negligence.

Another important advance in forest protection is the development by the Dominion Forest Service of methods for the daily measurement of the actual degree of forest-fire danger. In the forest types and regions in which the necessary research has been completed the forest authorities are able, not only to gauge the trend of increasing fire danger at any given time but, by the aid of weather forecasts, to anticipate the trend one or two days in advance and so regulate their activities to meet hazardous conditions as they develop. Increased attention is being devoted to the scientific planning of fire-control operations so as to achieve adequate protection at minimum cost.

The various governmental forest authorities conduct forest conservation publicity work independently and in co-operation with the Canadian Forestry Association. Since its beginning in 1900, that Association has played an important part in securing popular co-operation in reducing the fire hazard. By means of its magazine, which has a large circulation, by railway lecture cars and motor-trucks provided with motion-picture equipment, and by co-operation with radio broadcasting stations and the press, the Association reaches a large proportion of the population of Canada. Special efforts are made through the schools, by specially appointed junior forest wardens and other means, to educate the younger generation as to the value of forests, the devastation caused by fire and the means of preventing such destruction.

**Forest-Fire Statistics.**—Records of forest-fire losses in Canada are now available for the fire seasons of both 1947 and 1948. The 1947 season was an unusually favourable one, except in the Maritime Provinces where severe drought conditions prevailed during the late summer and autumn. In 1948, on the other hand, measurable damage combined with fire-fighting cost was the second highest in 20 years, being exceeded only by that of 1941. Exceptionally dry weather over wide areas in the Great Lakes region and in Central Canada during the early summer and autumn months contributed to the bulk of the losses sustained.

Summary statistics of fire losses are given in Tables 4 and 5. It should be noted that estimates of damage to timber are based on prevailing stumpage rates only, and take no account of other potential losses to the wood-using industries. Moreover, the estimated values destroyed make no provision for damage to soil and site quality, stream-flow regulation, wild life, or recreational and similar values, none of which can be reliably appraised in terms of dollars. Damage to property, such as buildings, logs and equipment is, however, included.

More detailed statistics of forest-fire losses may be obtained from the Dominion Forest Service, Department of Mines and Resources, Ottawa.

**4.—Summary Statistics of Forest-Fire Losses, 1947 and 1948, with Ten-Year Averages and Analysis by Areas, 1938-47**

Item	Average 1938-47 <sup>1</sup>	1947 <sup>1</sup>	1948 <sup>1</sup>
Fires under 10 acres..... No.	3,846	3,893	3,863
Fires 10 acres and over..... "	1,570	1,124	1,505
<b>Totals Fires..... No.</b>	<b>5,416</b>	<b>5,017</b>	<b>5,368</b>
<b>Area Burned—</b>			
Merchantable timber..... acres	416,656	105,098	949,530
Young growth..... "	411,456	98,591	629,242
Cut-over lands..... "	330,711	93,747	264,096
Non-forested..... "	703,711	315,571	1,342,115
<b>Totals, Area Burned..... acres</b>	<b>1,862,534</b>	<b>613,007</b>	<b>3,184,983</b>
<b>Merchantable Timber Burned—</b>			
Saw timber..... M ft. b.m.	544,933	38,107	815,574
Small material..... cords	1,735,779	359,982	2,470,572
<b>Estimated Values Destroyed—</b>			
Merchantable timber..... \$	2,027,181	565,560	3,426,308
Young growth..... \$	721,928	289,407	1,149,062
Cut-over lands..... \$	291,662	97,389	228,881
Other property burned..... \$	710,780	1,180,630	1,077,305
<b>Totals, Damage..... \$</b>	<b>3,751,551</b>	<b>2,132,986</b>	<b>5,881,556</b>
Actual cost of fire-fighting..... \$	913,172	1,170,859	2,619,999
<b>Totals, Damage and Fire-fighting Cost.. \$</b>	<b>4,664,723</b>	<b>3,303,845</b>	<b>8,501,555</b>
	Average 1938-47	1947	1948
<b>British Columbia—</b>			
Forest fires..... No.	1,716	1,332	799
Area burned..... acres	339,676	142,765	384,356
Fire-fighting cost and damage..... \$	1,074,196	484,974	627,585
<b>Prairie Provinces—</b>			
Forest fires..... No.	836	380	872
Area burned..... acres	999,201	186,286	1,510,276
Fire-fighting cost and damage..... \$	1,224,910	255,367	1,724,826
<b>Ontario—</b>			
Forest fires..... No.	1,161	1,393	2,036
Area burned..... acres	150,024	84,032	1,017,389
Fire-fighting cost and damage..... \$	676,958	640,090	5,226,151
<b>Quebec—</b>			
Forest fires..... No.	1,084	1,111	1,280
Area burned..... acres	270,715	96,919	224,750
Fire-fighting cost and damage..... \$	1,192,128	702,681	846,990
<b>Maritimes—</b>			
Forest fires..... No.	505	744	315
Area burned..... acres	50,330	96,901	3,805
Fire-fighting cost and damage..... \$	423,030	1,188,985	43,342
<b>Federal Lands—</b>			
Yukon and Northwest Territories—			
Forest fires..... No.	..	48	80
Area burned..... acres	..	38,111	120,877
Fire-fighting cost and damage..... \$	..	983,705	201,128
Other Federal Lands—			
Forest fires..... No.	114	57	66
Area burned..... acres	52,588	6,104	44,407
Fire-fighting cost and damage..... \$	73,501	31,748	32,661

<sup>1</sup> Does not include Yukon and the Northwest Territories, for which no records were available prior to 1946.



## 5.—Forest Fires, by Causes, 1947 and 1948, with Ten-Year Averages, 1938-47

NOTE.—Exclusive of Yukon and the Northwest Territories.

Cause	Average 1938-47		1947		1948	
	No.	p.c.	No.	p.c.	No.	p.c.
Camp-fires.....	900	17	746	15	902	17
Smokers.....	1,026	19	1,164	23	1,216	23
Settlers.....	712	13	405	8	611	11
Railways.....	456	8	596	12	627	12
Lightning.....	987	18	1,022	20	967	18
Industrial operations.....	175	3	234	5	228	4
Incendiary.....	231	4	118	3	124	2
Public works.....	46	1	57	1	83	2
Miscellaneous known.....	471	9	414	8	324	6
Unknown.....	412	8	261	5	286	5
<b>Totals<sup>1</sup>.....</b>	<b>5,416</b>	<b>100</b>	<b>5,017</b>	<b>100</b>	<b>5,368</b>	<b>100</b>

<sup>1</sup> Includes Federal lands within provincial boundaries.

## Subsection 3.—Scientific Forest Research

The great forestry problem is the management of Crown forests, first under provisional and later under more intensive working plans, so as to ensure a sustained yield. Forest research activities in this direction are now assuming great importance. The Dominion Forest Service of the Department of Mines and Resources operates five forest experiment stations with a total area of 227 sq. miles.\* Here investigations of the underlying principles governing the growth of forests and improvement in the rate of increment are made and practical methods of management tested.

About 1,000 technically trained foresters are employed by the Federal Government, by provincial forest services or by pulp, paper, and lumber companies. A number of foresters are actively engaged in commercial logging operations and, in addition to administrative work, these men carry on forest surveys either for the estimation of timber-stands and making of maps, or to determine natural growth and reproduction conditions and factors.

Through the use of air photographs taken largely by the Royal Canadian Air Force and base maps prepared by the mapping organizations of the Departments of Mines and Resources and National Defence, the Dominion Forest Service has taken a leading part in the development of methods for the interpretation of air photographs for forestry purposes, (see p. 464). Provincial forest services and timber holding companies are accelerating their use of air photographs. It is now possible not only to delineate the different forest types, but also to obtain from air photographs information that facilitates the preparation of quantitative timber estimates, and greatly reduces the amount of groundwork required. Aerial photographs drawn to scales suitable for mapping purposes covering upwards of 2,600,000 sq. miles are now available in the National Air Photographic Library of the Department of Mines and Resources, and about 140,000 sq. miles of forest have been mapped and classified from the photographs. Still greater use of air photographs for forestry purposes is expected in future.

Specialized work in silvicultural research and problems connected with forest utilization are carried on by the Forest Service of the Department of Mines and Resources. On the other hand, the Department of Agriculture conducts specialized research work in the fields of forest pathology and forest entomology. Details of the programs of work under each heading follow.

\* See Table 3, p. 463.



**Silvicultural Research.**—Research in the field of silviculture is centred in five Dominion Forest Experimental Stations located in New Brunswick, Quebec, Ontario, Manitoba and Alberta, but supplementary studies are conducted in other areas in co-operation with the Provincial Governments and with industry. The purpose of this work is to keep all forest lands in continuous production and to obtain the highest possible volume of timber of good quality within a shorter period of time than is permitted by the unaided operations of nature, and at a cost that is economically feasible. Problems of regeneration, methods of cutting and tree breeding—by selection and developments of superior strains for artificial propagation—are dealt with.

**Forest Products Research.**—Research in this field is carried out by Forest Products Laboratories operating at Ottawa and Vancouver, and work covers lumber seasoning, timber mechanics, timber physics, timber pathology, wood preservation, wood chemistry and wood utilization.

Pulp and paper research is carried on at the Pulp and Paper Research Institute of Canada at Montreal and is organized under a co-operative agreement among the Federal Government, the Canadian Pulp and Paper Association and McGill University. The program of work includes woodlands research and refers to investigations in the Division of Industrial and Cellulose Chemistry of McGill University.

More detailed information on forest products research may be found at pp. 994-995 of the 1940 Year Book.

**Forest Entomology.**—The study of forest insect problems in Canada is entrusted to the Forest Insect Investigations Unit of the Division of Entomology, Science Service, Department of Agriculture. Seven main laboratories are maintained and in addition four sub-laboratories and a number of temporary field stations and camps.

A more detailed analysis of the activities of the Forest Insect Investigations Unit is given in a special article entitled "Noxious Forest Insects and Their Control" which appears at pp. 389-400 of the 1947 Year Book.

**Forest Insects Control Board.**—The Forest Insects Control Board operates under the Department of Mines and Resources and is composed of ten members representing Federal and provincial governments and the pulp and paper industry. Its purpose is to secure additional funds where necessary, and to supplement the functions of the existing Federal and provincial government agencies in order to co-ordinate all efforts into one program aiming towards the solution of the forest insect problem in Canada.

**Secondary Wood and Paper-Using Industries.**—In addition to the primary forest industries, there are a number of important industries that use the primary forest product as raw material for further manufacture. These include industries that produce commodities made almost entirely of wood or wood-pulp and also those that take paper—a secondary product—as their raw material and fabricate it into still more highly processed forms.

The veneer and plywood industry has enjoyed phenomenal growth during the past decade. Production has more than trebled since 1939, and the use of plywood is expanding as its properties are becoming more widely known.

A detailed description of the wood-using, paper-using, and veneer and plywoods industries will be found at pp. 427-430 of the 1948-49 Year Book.

## Section 6.—Forest Utilization

Forest utilization is concerned with the broad group of industries that include the hewing down of timber in the forest and the transforming of it into the many utilitarian shapes and forms required by modern standards of living. Thus they provide the raw material for sawmills, pulp and paper mills and for the still wider range of secondary industries that take the products of these basic industries and convert them into more highly manufactured goods such as veneers and plywoods, sash and doors, furniture and all the vast range of industries that use wood in any form in their processes. The Manufactures Chapter cannot do more than treat these industries in their relationship to all industry, but the purpose here is to relate them to the primary resources of the forest. These industries, especially the pulp and paper industry and the lumber industry, contribute substantially to the value of Canada's export trade and thereby provide the exchange necessary to pay for a large share of the imports that have to be purchased from other countries, particularly the United States.

### Subsection 1.—Woods Operations

In connection with operations in the woods, it should be borne in mind that the forests not only provide the raw materials for the sawmills, pulp-mills, wood distillation, charcoal, excelsior and other plants, but that they also provide logs, pulpwood and bolts for export in the unmanufactured state, and fuel, poles, railway ties, posts and fence rails, mining timber, piling and other primary products, which are finished in the woods ready for use or exportation. There are also a number of minor forest products, such as Christmas trees, maple sugar and syrup, balsam gum, resin, cascara, moss and tanbark, that go to swell the total.

It has been estimated that operations in the woods in Canada in 1947 gave employment during the logging season amounting to 43,574,000 man days, and distributed \$340,000,000 in wages and salaries.

### 6.—Values of Woods Operations, by Products, 1942-47

Product	1942	1943	1944	1945	1946	1947
	\$	\$	\$	\$	\$	\$
Logs and bolts.....	92,897,611	99,852,479	115,788,036	120,682,306	150,933,681	205,259,855
Pulpwood.....	103,619,151	110,844,790	124,363,926	146,172,701	183,085,359	237,488,741
Firewood.....	27,264,486	45,152,897	44,332,748	45,193,219	49,544,756	46,206,336
Hewn railway ties.....	878,830	1,138,663	1,289,165	1,339,920	1,131,951	1,177,806
Poles.....	2,663,603	2,032,681	5,217,255	5,663,793	5,302,324	8,404,809
Round mining timber.....	2,169,268	3,418,857	3,509,015	6,437,074	12,149,767	10,082,458
Fence posts.....	1,291,393	1,902,546	2,216,585	2,690,569	3,091,268	2,832,783
Wood for distillation.....	745,408	774,344	887,260	687,102	452,196	544,746
Fence rails.....	341,607	464,365	513,135	367,741	605,503	628,804
Miscellaneous products.....	2,500,534	3,033,661	3,453,698	5,090,476	6,972,509	7,177,790
<b>Totals.....</b>	<b>234,371,891</b>	<b>268,615,283</b>	<b>301,570,823</b>	<b>334,324,901</b>	<b>413,269,314</b>	<b>519,804,128</b>

### 7.—Wood Cut in Operations in the Woods, Equivalent in Merchantable Wood, by Production and Consumption of Chief Products, 1946 and 1947, with Comparative Totals, 1939-45

NOTE.—Details by chief products and by provinces for the years 1926-46 will be found in the "Annual Estimate of Operations in the Woods, 1946", published by the Forestry Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

Year and Product	Production			Consumption		
	Quantity Reported or Estimated	Equivalent Volume of Merchantable Wood <sup>1</sup>	Total Value	Quantity Reported or Estimated	Equivalent Volume of Merchantable Wood <sup>1</sup>	Total Value
		M cu. ft.			M cu. ft.	
<b>Totals, 1939</b> .....	...	2,258,583	157,747,398	...	2,042,443	137,387,009
1940.....	...	2,676,814	194,567,875	...	2,464,193	171,389,830
1941.....	...	2,683,731	213,163,089	...	2,441,932	187,838,019
1942.....	...	2,608,605	234,371,891	...	2,391,342	207,017,934
1943.....	...	2,475,906	268,615,283	...	2,312,200	243,737,886
1944.....	...	2,508,046	301,570,823	...	2,332,157	270,730,868
1945.....	...	2,566,058	334,324,901	...	2,375,780	298,992,227
<b>1946</b>						
Logs and bolts..... M ft. b.m.	5,603,944	1,072,413	150,933,681	5,569,023	1,066,230	149,429,950
Pulpwood..... cord	10,523,256	894,476	183,085,359	8,684,756	738,204	154,581,001
Firewood..... " "	9,102,452	728,196	49,544,756	9,073,342	725,867	49,111,834
Hewn railway ties..... No.	1,042,054	5,210	1,131,951	1,042,054	5,210	1,131,951
Poles and piling..... " "	830,911	12,464	5,302,324	460,596	6,909	3,332,620
Round mining timber..... cu. ft.	30,564,858	30,565	12,149,767	7,311,801	7,312	2,975,472
Fence posts..... No.	18,810,803	22,573	3,091,268	14,656,390	17,588	2,244,511
Wood for distillation..... cord	43,411	3,473	452,196	43,411	3,473	452,196
Fence rails..... No.	5,087,190	5,087	605,503	5,087,190	5,087	605,503
Miscellaneous products.....	...	38,261	6,972,509	...	9,180	1,672,879
<b>Totals, 1946</b> .....	...	2,812,718	413,269,314	...	2,585,060	365,537,917
<b>1947</b>						
Logs and bolts..... M ft. b.m.	6,525,204	1,245,989	205,259,855	6,508,459	1,243,243	203,227,333
Pulpwood..... cord	11,484,522	976,184	237,488,741	9,551,050	811,839	203,738,527
Firewood..... " "	9,297,560	743,805	46,206,336	9,279,040	742,324	45,940,838
Hewn railway ties..... No.	1,009,961	5,049	1,177,806	1,009,961	5,049	1,177,806
Poles and piling..... " "	1,020,163	15,302	8,404,809	602,419	9,036	5,486,943
Round mining timber..... cu. ft.	39,640,055	39,640	10,082,458	7,490,630	7,491	1,947,536
Fence posts..... No.	17,197,664	20,637	2,832,783	14,859,120	17,831	2,340,460
Wood for distillation..... cord	53,613	4,289	544,746	53,613	4,289	544,746
Fence rails..... No.	5,127,790	5,128	628,804	5,127,790	5,128	628,804
Miscellaneous products.....	...	35,063	7,177,790	...	8,251	1,689,048
<b>Totals, 1947</b> .....	...	3,091,086	519,804,128	...	2,854,481	466,722,041

<sup>1</sup> In estimating the annual drain on Canada's forest resources, certain converting factors have been used, each of which represents in cubic feet the quantity of merchantable wood used to produce one unit of the material in question. The factor for logs and bolts for the British Columbia coastal region is 175 and for the rest of Canada 200. Other factors: pulpwood 85, firewood 80, hewn railway ties 5, poles and piling 15, fence posts 1.2 and wood for distillation 80. A change in computing the converting factor was introduced in 1944-45 and is described at p. 265 of the 1946 Year Book.

### 8.—Equivalent Volumes of Solid Wood Cut and Values of Products of Woods Operations, by Provinces, 1945-47

Province	Equivalent Volumes of Solid Wood			Values of Products		
	1945	1946	1947	1945	1946	1947
	M cu. ft.	M cu. ft.	M cu. ft.	\$	\$	\$
Prince Edward Island.....	12,271	13,270	13,808	944,267	1,146,189	1,159,278
Nova Scotia.....	103,823	125,290	140,706	12,478,263	17,311,397	19,498,355
New Brunswick.....	185,382	218,288	247,912	28,306,356	37,372,259	46,165,557
Quebec.....	993,674	1,070,300	1,114,018	139,733,279	168,758,131	200,870,414
Ontario.....	479,289	564,501	613,919	70,420,303	90,412,114	109,528,181
Manitoba.....	67,523	70,630	73,463	5,605,913	6,684,339	7,492,875
Saskatchewan.....	96,833	90,749	93,638	5,679,126	5,850,368	6,321,605
Alberta.....	108,055	119,583	127,480	6,850,147	8,271,682	8,618,182
British Columbia.....	519,208	540,107	666,142	64,307,247	77,462,835	120,149,681
<b>Totals</b> .....	2,566,058	2,812,718	3,091,086	334,324,901	413,269,314	519,804,128



### Subsection 2.—The Lumber Industry

The manufacture of sawn lumber is the second most important industry in Canada depending on the forest for its raw materials.

The total number of sawmills, tie, shingle, lath, veneer, stave, heading and hoop mills and mills for cutting-up and barking or rossing of pulpwood that reported in 1947 was 6,481, as compared with 6,001 in 1946. Employees numbered 55,426 and wages and salaries amounted to \$83,360,452. The logs, bolts and other materials and supplies of the industry were valued at \$208,543,819, the gross value of production was \$402,133,298 and net value \$190,514,978.

Lumber production in Canada reached its maximum in 1947 at almost 5,877,901,000 ft. b.m. Average values were fairly uniform up to 1916, but increased rapidly from 1917 to 1920, only to decline gradually during the following years to the lowest level for the entire period, which was reached in 1932. With the exception of 1938, increases took place each year from 1933 to 1947.

#### 9.—Quantities and Values of Lumber and All Sawmill Products, by Provinces, 1946 and 1947

Province or Territory	Lumber Production				Total Values <sup>1</sup>	
	Quantities		Values		1946	1947
	1946	1947	1946	1947		
	M ft. b.m.	M ft. b.m.	\$	\$	\$	\$
Prince Edward Island.....	12,232	13,893	492,477	587,924	562,631	661,504
Nova Scotia.....	330,578	387,996	14,519,554	18,014,263	16,159,079	19,654,834
New Brunswick.....	316,141	354,767	14,948,556	17,951,051	17,230,075	20,608,236
Quebec.....	1,161,607	1,227,055	55,249,378	63,253,288	66,160,934	73,898,677
Ontario.....	673,441	733,129	34,181,404	41,526,059	41,526,408	51,170,386
Manitoba.....	59,234	65,307	2,290,813	2,809,324	2,483,193	2,938,224
Saskatchewan.....	104,970	104,744	3,703,021	3,973,886	3,947,249	4,185,743
Alberta.....	255,675	283,478	8,898,471	9,691,039	9,383,450	10,743,328
British Columbia.....	2,169,096	2,707,052	96,882,732	164,199,747	130,433,625	218,235,191
Yukon.....	306	480	23,293	36,775	23,413	37,175
<b>Totals.....</b>	<b>5,083,280</b>	<b>5,877,901</b>	<b>230,189,699</b>	<b>322,048,356</b>	<b>287,910,057</b>	<b>402,133,298</b>

<sup>1</sup> Includes all other sawmill products.

#### 10.—Lumber Cut By Kinds of Wood, 1946 and 1947

Kinds of Wood	Quantity		Value	
	1946	1947	1946	1947
	M ft. b.m.	M ft. b.m.	\$	\$
Spruce.....	1,782,598	2,011,659	75,983,581	93,219,260
Douglas fir.....	1,128,325	1,410,177	43,660,805	85,566,959
Hemlock.....	589,091	657,016	25,782,165	39,009,827
White pine.....	351,490	385,805	19,811,249	23,976,633
Cedar.....	221,860	302,710	12,447,838	23,144,075
Yellow birch.....	187,353	212,718	10,040,288	12,686,421
Jack pine and lodgepole pine.....	236,345	233,762	9,897,015	10,804,956
Maple.....	103,971	112,002	6,123,144	6,880,167
Balsam fir.....	129,019	142,031	5,493,437	6,502,451
Red pine.....	62,121	67,256	3,181,180	3,834,922
Other kinds.....	291,107	342,765	12,768,997	16,422,685
<b>Totals.....</b>	<b>5,083,280</b>	<b>5,877,901</b>	<b>230,189,699</b>	<b>322,048,356</b>



### 11.—Quantities and Values of Lumber, Shingles and Lath Produced, 1939-47

NOTE.—Figures for the years 1908-28, inclusive, will be found at p. 300 of the 1931 Year Book, for 1929-30 at p. 262 of the 1943-44 edition and for 1931-38 at p. 415 of the 1947 edition.

Year	Lumber Cut		Shingles Cut		Lath Cut	
	Quantity	Value	Quantity	Value	Quantity	Value
	M ft. b.m.	\$	Squares	\$	M	\$
1939.....	3,976,882	78,331,839	3,469,411	9,048,876	163,686	476,252
1940.....	4,628,952	105,988,216	4,420,240	9,600,497	216,465	688,167
1941.....	4,941,084	129,287,703	4,160,772	12,309,632	204,991	731,227
1942.....	4,935,145	149,854,527	3,720,482	13,191,084	181,994	737,874
1943.....	4,363,575	151,899,684	2,565,752	10,020,804	114,029	554,278
1944.....	4,512,232	170,351,406	2,697,724	11,411,359	110,639	645,010
1945.....	4,514,160	181,045,952	2,665,432	11,737,224	117,731	752,245
1946.....	5,083,280	230,189,699	2,646,022	14,512,796	134,591	908,564
1947.....	5,877,901	322,048,356	3,077,248	24,449,305	151,151	1,239,824

**Lumber Exports.**—For exports of planks, boards and square timber see Table 14, Chapter XXII.

### Subsection 3.—The Pulp and Paper Industry

The rapid development of this industry in Canada is traced briefly at p. 265 of the 1940 Year Book. Summary statistics for the combined pulp and paper industries are given at pp. 478-479 of this volume.

There are three classes of mills in the industry. These, in 1947, numbered 29 making pulp only, 27 making paper only and 59 combined pulp and paper mills.

The industry in Canada includes three forms of industrial activity, operations in the woods with pulpwood as a product, the manufacture of pulp and the manufacture of paper. Some of the important pulp companies operate sawmills to utilize the larger timber on their limits to the best advantage, and some lumber manufacturers divert a proportion of their spruce and balsam logs to pulp-mills. Less than one-fifth of the pulpwood cut in Canada is exported in raw or unmanufactured form and a large proportion of such exports is cut from private lands.

### 12.—Production, Consumption, Exports and Imports of Pulpwood, 1939-47

NOTE.—Figures for earlier years will be found in the corresponding tables of previous Year Books.

Year	Apparent Total Production of Pulpwood in Canada			Canadian Pulpwood Used in Canadian Pulp-Mills		Canadian Pulpwood Exported Unmanufactured		Imported Pulpwood Used in Canada	
	Quantity <sup>1</sup>	Total Value	Average Value per Cord	Quantity <sup>1</sup>	P.C. of Total Production	Quantity <sup>1</sup>	P.C. of Total Production	Quantity <sup>1</sup>	P.C. of Total Consumption
	cords	\$	\$	cords		cords		cords	
1939...	6,899,986	58,302,668	8.45	5,360,546	77.7	1,539,440	22.3	25,694	0.5
1940...	8,499,922	74,347,132	8.75	6,948,493	81.7	1,551,429	18.3	47,626	0.7
1941...	9,544,699	88,193,045	9.24	7,688,307	80.6	1,856,392	19.4	81	--
1942...	9,653,574	103,619,151	10.73	7,665,724	79.4	1,987,850	20.6	1,714	--
1943...	8,801,368	110,844,790	12.59	7,260,776	82.5	1,540,592	17.5	2,379	--
1944...	8,608,566	124,363,926	14.35	7,169,430	82.7	1,499,136	17.3	8,209	0.1
1945...	9,145,673	146,172,701	15.98	7,474,375	81.7	1,671,298	18.3	4,133	--
1946...	10,523,256	183,085,359	17.40	8,667,875	82.4	1,855,381	17.6	16,881	0.2
1947...	11,484,522	237,488,741	20.65	9,500,542	82.7	1,983,980	17.3	50,508	0.5

<sup>1</sup> All quantities are given in terms of rough or unpeeled wood.

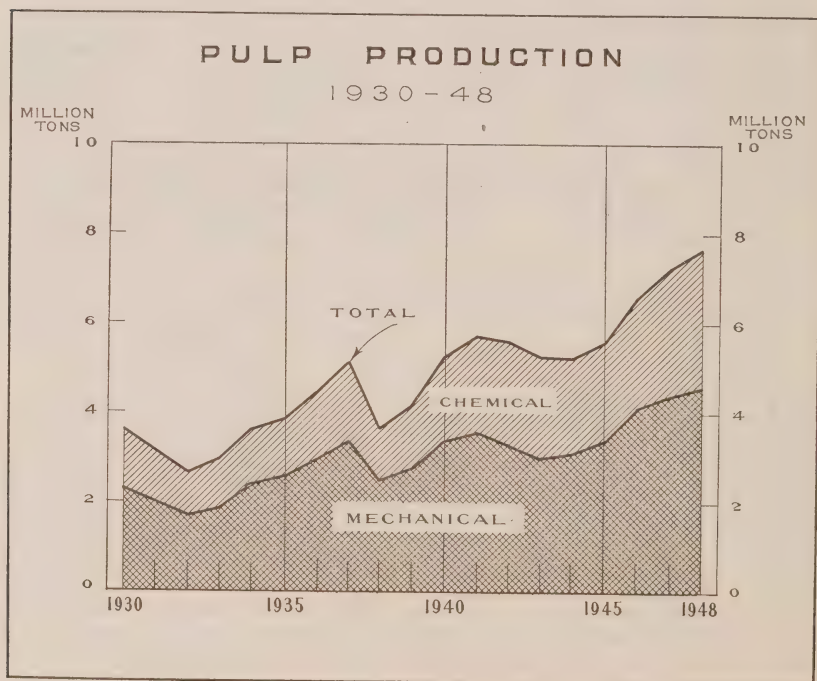
The manufacture of pulp is the second stage in this industry. This is carried on by mills producing pulp alone and also by paper manufacturers operating pulp-mills in conjunction with paper-mills to provide their own raw material. Such mills

usually manufacture a surplus of pulp for sale in Canada or for export. Spruce, supplemented by balsam fir in the east and by hemlock in the west, is the most suitable species of wood for the production of all but the best classes of paper.

The preliminary preparation of pulpwood is frequently carried on at the pulp-mill, but there are also a number of 'cutting-up' and 'rossing' mills operating on an independent basis, chiefly for the purpose of saving freight on material cut at a distance from the mill or on material intended for exportation. Pulpwood is measured by the cord (4' by 4' by 8' of piled material). One cord of rough pulpwood contains approximately 85 cu. ft. of solid wood, and one cord of peeled pulpwood 95 cu. ft.

**Pulp Production.**—Of the total 1947 pulp production 72 p.c. was made in combined pulp- and paper-mills for their own use in manufacturing paper. The remainder was made for sale in Canada or for export. About 59 p.c. was groundwood pulp and over 18 p.c. unbleached sulphite fibre, these two being the principal components of newsprint paper. Bleached sulphite, bleached and unbleached sulphate, soda fibre and groundwood and chemical screenings made up the remainder. A considerable market has developed for screenings in connection with the manufacture of rigid insulating boards.

The manufacture of the 7,253,671 tons of pulp produced in 1947 entailed the use of 9,551,050 cords of rough pulpwood valued at \$203,738,527 and the equivalent of 117,041 rough cords of other wood (i.e., sawmill chips, slabs and edgings, sawdust, butt cores, etc.) valued at \$2,525,960. The total value of materials used in the manufacture of pulp was \$231,668,229.



**13.—Pulp Production, Mechanical and Chemical, 1938-47**

NOTE.—Figures for earlier years will be found in the corresponding tables of previous Year Books.

Year	Mechanical Pulp <sup>1</sup>		Chemical Fibre <sup>1</sup>		Total Production	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	\$	tons	\$	tons	\$
1938.....	2,520,738	39,707,479	1,147,051	48,189,669	3,667,789	87,897,148
1939.....	2,796,093	43,530,367	1,370,208	53,601,450	4,166,301	97,131,817
1940.....	3,368,209	56,017,547	1,922,553	92,987,720	5,290,762	149,005,267
1941.....	3,550,285	61,749,788	2,170,562	113,689,763	5,720,847	175,439,551
1942.....	3,308,118	65,208,919	2,298,343	126,936,143	5,606,461	192,145,062
1943.....	3,033,751	63,721,703	2,239,079	130,797,449	5,272,830	194,519,152
1944.....	3,113,142	72,097,231	2,157,995	138,944,181	5,271,137	211,041,412
1945.....	3,393,426	86,990,626	2,207,388	144,882,496	5,600,814	231,873,122
1946.....	4,122,046	113,599,526	2,493,364	174,024,701	6,615,410	287,624,227
1947.....	4,415,466	150,454,076	2,838,205	253,399,159	7,253,671	403,853,235

<sup>1</sup> Includes screenings.**14.—Pulp Production, by Chief Producing Provinces, 1938-47**

NOTE.—Figures for earlier years will be found in the corresponding tables of previous Year Books.

Year	Quebec		Ontario		Canada <sup>1</sup>	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	\$	tons	\$	tons	\$
1938.....	1,858,971	44,220,224	1,057,984	25,821,023	3,667,789	87,897,148
1939.....	2,119,183	49,026,966	1,158,576	27,631,051	4,166,301	97,131,817
1940.....	2,794,384	76,996,100	1,369,389	38,235,733	5,290,762	149,005,267
1941.....	2,971,386	89,103,399	1,507,324	46,908,967	5,720,847	175,439,551
1942.....	2,896,440	97,632,408	1,513,967	51,936,704	5,606,461	192,145,062
1943.....	2,617,403	94,054,176	1,490,966	54,818,046	5,272,830	194,519,152
1944.....	2,767,081	105,042,991	1,316,365	54,934,993	5,271,137	211,041,412
1945.....	2,887,176	114,197,036	1,468,682	62,596,260	5,600,814	231,873,122
1946.....	3,460,853	140,930,891	1,837,975	84,049,038	6,615,410	287,624,227
1947.....	3,751,579	194,805,327	2,100,237	122,382,058	7,253,671	403,853,235

<sup>1</sup> Includes production in British Columbia, Manitoba, New Brunswick and Nova Scotia.

**Pulp Exports.**—The quantities and values of pulp exported from Canada in the years 1938-48 are given in Table 15.

**15.—Exports of Pulp to the United Kingdom, United States and All Countries, 1938-48**

Year	United Kingdom		United States		All Countries	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	\$	tons	\$	tons	\$
1938.....	67,694	3,675,448	453,861	21,561,546	554,037	27,730,738
1939.....	72,437	2,712,942	606,588	26,836,718	705,515	31,000,602
1940.....	176,218	9,966,249	825,268	46,576,654	1,068,517	60,930,149
1941.....	265,977	15,412,380	1,108,845	68,161,163	1,411,724	85,897,736
1942.....	294,056	17,950,527	1,197,425	76,087,788	1,510,746	95,268,873
1943.....	263,392	17,349,975	1,269,043	80,969,868	1,556,457	100,012,775
1944.....	292,808	21,393,993	1,077,811	77,081,637	1,408,081	101,563,024
1945.....	290,885	22,276,514	1,093,631	79,589,366	1,434,527	106,054,911
1946.....	119,973	10,122,012	1,252,648	99,972,972	1,418,558	114,020,659
1947.....	136,976	14,741,287	1,499,302	156,121,526	1,698,712	177,802,612
1948.....	170,227	21,359,288	1,591,043	184,983,027	1,797,998	211,564,384

**World Pulp Statistics.**—Figures of production, exports and imports of pulp for certain countries of the world have again become available after the interruption caused by the War and are shown for 1947 in Table 16. Pre-war world figures of pulp exports are given at p. 201 of the 1941 Year Book.

### 16.—World Pulp Production, Exports and Imports, by Countries, 1947

(Sources: United States Pulp Producers Association and FAO *Yearbook of Forest Products Statistics*)

Country	Production	Exports	Imports
	'000 tons	'000 tons	'000 tons
Canada.....	7,192 <sup>1</sup>	1,699	28
Newfoundland.....	439	47	—
United States.....	11,951	130	2,332
Finland.....	1,598	802	—
Norway.....	697	215	38
Sweden.....	3,111	1,983	—
Other.....	4,040	63	2,597
<b>Totals.....</b>	<b>29,023</b>	<b>4,939</b>	<b>4,995<sup>2</sup></b>

<sup>1</sup> Slightly lower than Bureau of Statistics figures given in Table 13 because of the exclusion of certain types of pulp by the Association. <sup>2</sup> Estimated.

**Paper Production.**—During 1947 there were 86 establishments producing paper and paper board in Canada as compared with 82 in 1946. In addition to newsprint, Canadian mills have a highly developed production of fine paper, wrapping paper, tissues, paper board and other cellulose products.

### 17.—Paper Production, by Type, 1938-47

NOTE.—Figures for earlier years will be found in the corresponding table of previous Year Books.

Year	Newsprint Paper		Book and Writing Paper		Wrapping Paper	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	\$	tons	\$	tons	\$
1938.....	2,668,913	107,051,202	73,834	11,098,901	90,879	9,069,298
1939.....	2,926,597	120,858,583	90,135	12,773,781	109,907	10,712,394
1940.....	3,503,801	158,447,311	102,696	15,518,667	139,716	14,457,299
1941.....	3,519,733	158,925,310	117,444	18,476,397	162,581	16,744,806
1942.....	3,257,180	147,074,109	121,419	19,181,665	165,991	17,221,769
1943.....	3,046,442	152,962,868	122,174	19,047,039	145,545	15,614,453
1944.....	3,039,783	165,655,165	155,498	23,700,310	156,721	16,699,663
1945.....	3,324,033	189,023,736	162,198	24,468,409	162,175	17,558,552
1946.....	4,162,158	280,809,610	189,318	29,995,156	175,369	20,797,070
1947.....	4,474,264	355,540,669	210,762	39,727,187	188,742	26,009,996
	Paper Boards		Tissue and Miscellaneous Paper		Totals	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	\$	tons	\$	tons	\$
1938.....	356,891	19,288,172	58,841	5,142,492	3,249,358	151,650,065
1939.....	413,687	21,359,828	60,176	5,071,476	3,600,502	170,776,062
1940.....	500,094	31,078,759	73,107	6,334,773	4,319,414	225,836,809
1941.....	649,840	40,214,658	75,178	7,089,121	4,524,776	241,450,292
1942.....	609,175	38,641,867	78,002	8,150,102	4,231,767	230,269,512
1943.....	568,101	37,528,257	84,082	8,883,535	3,966,344	234,036,152
1944.....	588,348	39,091,667	104,026	10,399,036	4,044,376	255,545,841
1945.....	595,131	40,100,872	116,039	11,686,045	4,359,576	282,837,614
1946.....	683,643	50,213,833	136,630	15,140,721	5,347,118	396,956,390
1947.....	744,377	66,126,302	156,937	19,697,123	5,775,082	507,101,277

Quebec produced almost 54 p.c. of the total quantity in 1947, Ontario 30 p.c., British Columbia 7 p.c. and Nova Scotia, New Brunswick and Manitoba the remaining 9 p.c.



## 18.—Paper Production, by Provinces, 1946 and 1947

Province	1946		1947	
	Quantity	Value	Quantity	Value
	tons	\$	tons	\$
Quebec.....	2,867,594	213,045,633	3,099,658	269,588,727
Ontario.....	1,579,537	120,929,769	1,730,965	158,603,917
British Columbia.....	370,950	26,733,893	412,818	35,342,443
Nova Scotia, New Brunswick and Manitoba.....	529,037	36,247,095	531,641	43,566,190
<b>Totals.....</b>	<b>5,347,118</b>	<b>396,956,390</b>	<b>5,775,082</b>	<b>507,101,277</b>

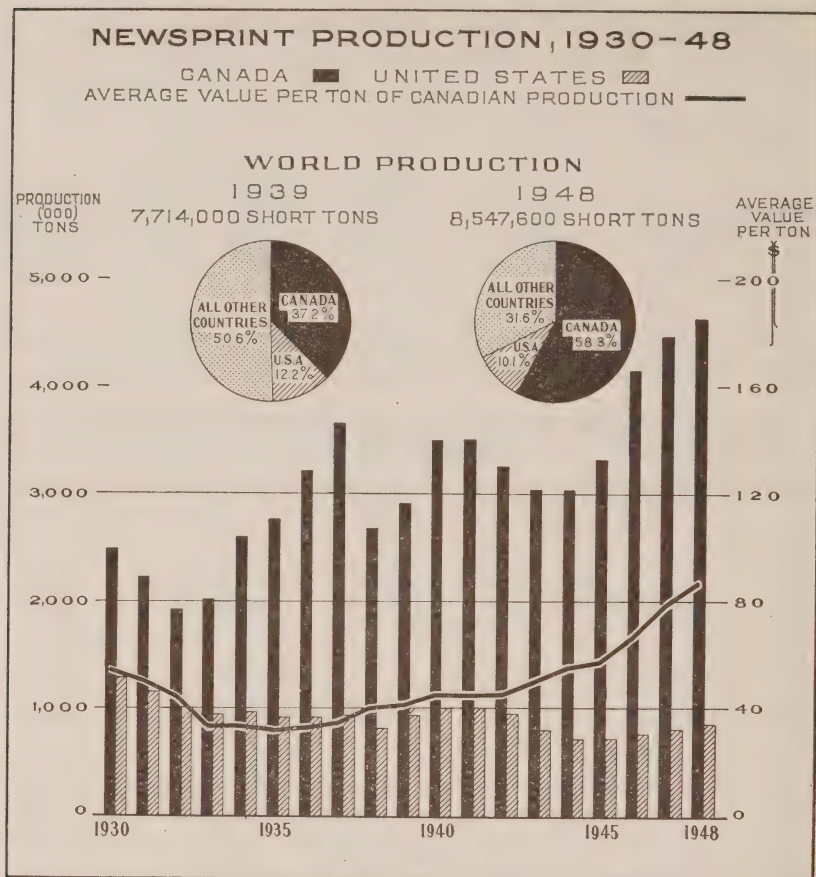
**Exports of Newsprint.**—Total exports of newsprint from Canada in the years 1938-48 are given in Table 19.

## 19.—Exports of Newsprint Paper to the United Kingdom, United States and All Countries, 1938-48

Year	United Kingdom		United States		All Countries	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	\$	tons	\$	tons	\$
1938.....	172,096	5,694,747	1,938,297	85,190,912	2,424,655	104,615,042
1939.....	176,754	5,811,462	2,206,386	97,057,620	2,658,723	115,687,288
1940.....	145,109	6,850,525	2,586,147	119,361,872	3,242,789	151,360,196
1941.....	94,082	4,492,699	2,762,241	129,162,253	3,262,012	154,356,543
1942.....	35,123	1,704,069	2,792,181	130,519,094	3,005,291	141,065,618
1943.....	30,427	1,773,834	2,544,691	129,787,019	2,810,288	144,707,065
1944.....	41,908	2,557,791	2,408,960	133,398,723	2,805,776	157,190,834
1945.....	105,648	6,564,645	2,533,564	146,507,805	3,058,946	179,450,771
1946.....	82,888	5,954,814	3,323,238	224,782,463	3,858,467	265,864,969
1947.....	55,520	4,623,491	3,675,349	291,892,729	4,220,779	342,293,158
1948.....	60,690	5,319,660	3,917,366	340,334,045	4,328,184	383,122,743

Since 1913 Canada has led the world in the export of newsprint. In 1938 the quantity of newsprint exported by the principal newsprint-producing countries was 3,806,737 short tons, of which Canada contributed nearly 64 p.c.

**World Newsprint Statistics.**—During the war years world figures of newsprint production and exports were not obtainable. However, production figures for the leading producing countries have again become available from the Newsprint Association of Canada and are given for 1947 in Table 20. The 1939 figures are included for comparative purposes. Figures for post-war exports of newsprint from those countries are still unavailable.



20.—World Newsprint Production, by Countries, 1947 as compared with 1939

(Source: Newsprint Association of Canada)

Country	1939	1947	Country	1939	1947
	'000 tons	'000 tons		'000 tons	'000 tons
Canada.....	2,869 <sup>1</sup>	4,447 <sup>1</sup>	Norway.....	226	125
United States.....	939	826	France.....	276	203
Newfoundland.....	308	373	Japan.....	437	100
United Kingdom.....	848	282	The Netherlands.....	104	38
Sweden.....	305	299	Other Europe.....	256	306
Finland.....	519	297	All other.....	12	79
U.S.S.R.....	200	200			
Germany.....	415	175	<b>Totals.....</b>	<b>7,714</b>	<b>7,750</b>

<sup>1</sup> Slightly lower than Bureau of Statistics figures given in Table 17 because of the exclusion of certain paper not classed as newsprint by the Association.

**Statistics of the Combined Pulp and Paper Industries.\***—The manufacture of pulp, the manufacture of paper and the manufacture of products made of paper may, under certain conditions, be treated as three industries, for they are

\* See Chapter XVII and the Index for further particulars regarding the pulp and paper and paper-converting industries.

frequently carried on in separate plants by entirely independent companies. The manufacture of basic stock and the converting of this paper into towels, stationery and other highly processed paper products are often combined in one plant. This further converting of paper within the pulp and paper industry itself represents only a small part of Canada's production of converted paper and boards, the bulk of which is still made in special converting mills classified in other industrial groups.

The presence of these different combinations in one mill makes it difficult to separate many of the statistics relating to the manufacture of pulp, basic paper and converted paper products. All converting operations carried on in paper-mills in this industry are attributed to the particular industrial group of converting plants to which they properly belong. Including manufacturing operations as far as the basic paper-making stage, there were altogether 115 mills in operation in 1947. The employees numbered 49,946 and their salaries and wages amounted to \$129,477,995. If the pulp made for their own use in combined pulp and paper mills is disregarded, the total of materials and supplies used in the industry as a whole can be considered as amounting to \$295,444,332 in 1947, \$223,448,338 in 1946 and \$170,369,499 in 1945; the gross value of production as \$706,971,628 in 1947, \$527,814,916 in 1946 and \$398,804,515 in 1945; and net value of production, \$356,084,900 in 1947, \$258,164,578 in 1946 and \$180,401,885 in 1945.

The pulp and paper industry is one of the leading single manufacturing industries in Canada. During the war years certain other industries rose temporarily to higher positions, but the pulp and paper industry has now resumed its former place. In 1947 it was first in net value of production, in gross value of production and in salaries and wages paid, and second in employment. Only the manufacturing stages of the industry are considered in these comparisons, no allowance being made for capital invested, men employed, wages paid or primary products sold in connection with the woods operations. These form an important part of the industry as a whole but cannot be separated from woods operations carried on in connection with sawmills and other industries. In world trade, generally speaking, pulp and paper are Canada's main commodities; usually greater than wheat and far greater than nickel. Newsprint alone, over a considerable period, has brought Canada more export dollars than wheat, nickel or any other single commodity.\* The United States market absorbs, annually, practically all pulpwood exports and over 80 p.c. of the pulp and the paper shipments of Canada. About one-half of the paper consumed in the United States is either of Canadian manufacture or is made from wood or wood-pulp imported from Canada.

#### **Subsection 4.—The Veneer and Plywood Industries**

At pp. 427-428 of the 1948-49 Year Book a short summary is given on this subject.

#### **Subsection 5.—The Wood-Using Industries**

Information regarding these industries is given at p. 429 of the 1948-49 Year Book.

#### **Subsection 6.—The Paper-Using Industries**

A brief résumé of the paper-using industries is given at pp. 429-430 of the 1948-49 Year Book.

\* For reasons given in Section 1, Part I of Chapter XXII, gold is excluded from Canadian trade statistics.

## CHAPTER XIII.—FUR RESOURCES AND PRODUCTION

### CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

### Section 1.—History of the Fur Trade

A historical outline tracing the development of the fur trade is published at pp. 281-282 of the 1946 Year Book. See also list of Special Articles under Fur Trade at the front of this volume.

### Section 2.—The Fur Industry

#### Subsection 1.—Wildlife

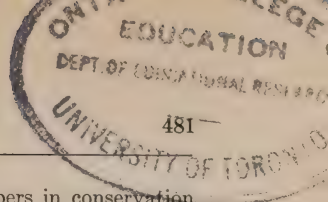
The fur resources of Canada are among its most valuable wildlife assets. With the increase in human population and the advance of settlement, the principal trapping of fur animals has moved farther northward. Although the raising of fur-bearers on farms has undergone marked development, wildlife still produces the greater proportion of Canadian furs.

Many animals, including some of the most valuable fur-bearers, are subject to marked fluctuations in numbers during successive years. In some species, the periods of abundance and of scarcity recur with sufficient regularity to be called cycles and these cycles influence the number of pelts taken annually.

The conservation of fur-bearing animals has long been a responsibility of Federal and provincial authorities and is receiving increasing attention each year. It requires careful management of wild fur-bearers that is analogous in many ways to management of domestic animals, though the means of control are different. Scientific studies reveal much detailed information about the principal factors that cause fur-bearers to increase or to decrease and these factors are then manipulated in various ways with a view to ensuring a high, steady annual production. The principal factors are food, space, shelter, weather and enemies, including diseases, parasites and predators. At times a rising demand for furs, accompanied by higher prices, has brought about a tendency toward trapping too high a proportion of the available stock, which tendency must be met by increased restrictions. Great changes in the supply of food and shelter available to fur-bearers in large areas have resulted at times from forest fires, floods and drought but, if the damage is not too deep, skilful management practices can restore production in these areas more rapidly than was possible a few decades ago.

In northern Canada, where trappers are widely scattered over vast areas, control of the take of fur-bearers by prohibition, close seasons and enforcement of trapping regulations presents difficulties not encountered in other areas. Through





increased staffs of game officials, better education of the trappers in conservation practices, and more complete information concerning the areas involved, the effectiveness of regulations for the conservation of wildlife shows a continuous improvement.

Conditions for the production of certain fur-bearers, especially beaver and muskrat, are readily improved through rehabilitation of the marshes and water areas that constitute their homes.

All provinces and territories now have trapping regulations and individual trappers are licensed. Some provinces register trap lines, others register trapping areas. These steps provide an incentive toward conservation measures on the part of the individual trapper who, in his own interest, will protect his area against poaching and will guard against 'over-trapping' or other unwise procedures that might wipe out local populations of fur-bearers on which his livelihood depends.

### Subsection 2.—Fur Farming\*

In the early days of the fur trade, it was the practice in Canada for trappers to keep foxes alive until the fur was prime, and from this custom has arisen the modern fur-farming industry. The earliest authentic record of raising foxes in captivity comes from Prince Edward Island, where about 65 years ago a number of foxes were raised on a farm near Tignish. After 1890, a period of rising prices for furs encouraged fox-farming and the industry grew rapidly. The beauty of the fur of the silver fox and the consequent high prices realized from the sale of the pelts, caused attention to be directed chiefly to this breed, which is a colour phase of the common red fox established through selective breeding carried on by the pioneer fox farmers. While experiments were being carried on in Prince Edward Island, attempts at raising foxes in captivity were also being made in other provinces; the records show that foxes were successfully bred in Quebec in 1898, in Ontario in 1905 and in Nova Scotia in 1906. The profitableness of fur farming became widely known in 1910 when prices obtained for the first silver-fox pelts sold at auction in London, England, were published. An average of \$1,339 per pelt was received on the sale of 25, one alone bringing the sum of \$2,627. A boom followed but this collapsed in 1914 and it was some time before the industry regained stability. Fur farming is now carried on in all provinces. An experimental fox ranch is operated by the Federal Government at Summerside, P.E.I., where problems of breeding, feeding, housing and general care are studied.

Although the fox was the first fur-bearing animal to be raised in captivity, many other kinds are now being bred—mink, raccoon, skunk, marten, fisher and rabbit. Mink are the most numerous and the most valuable of such farm-raised animals. From 1920 to 1939 there was a rapid expansion of fur farming in Canada and during that period there was a marked change in the type of furs that were most acceptable to the market. Black fox was popular 25 years ago. A few years later the highest prices were being paid for quarter and half silvers and during recent years the full silver and new types have been setting the upper price limit. The development of new colour phases in foxes and mink has proved an incentive to the fur-farming industry. New-type fox such as platinum, platinum-silver, pearl-platinum and white-marked are meeting a ready market as are the new-type mink including silver-sable, platinum, silverblu, snow-white and a number of other colour phases. In recent years chinchilla farming has been increasing and an

\* Revised in the Agriculture Division, Dominion Bureau of Statistics.

association, the National Chinchilla Breeders of Canada, has been formed. Chinchillas are now registrable under Live Stock Registrations of the Federal Department of Agriculture.

The first recorded account of fox farming in Newfoundland appeared in the minutes of the Game and Inland Fisheries Board which stated that between July, 1913, and November, 1915, there were over 1,000 applications for export of live foxes and 750 permits were granted. At that time the law prohibited the export of live foxes except where they were raised in captivity. In October, 1915, there were 315 ranches with 2,600 foxes, most of which were wild animals taken from burrows in the spring. In 1947 there were six fox farms with 180 females and 80 mink farms with 2,000 females. Mink ranching began with importations from Canada in 1936. Fur farmers and exporters are licensed and it is necessary to obtain a licence to export live fur-bearing animals. Since 1936 the Newfoundland Government has conducted a fur-farm training school at St. John's where experimental work on feeding has been carried on.

### Section 3.—Statistics of Fur Production\*

**Total Fur Production Statistics.**—Early records of raw-fur production are confined to the decennial censuses, when account was taken of the numbers and values of pelts obtained by trappers. In 1920 the Dominion Bureau of Statistics commenced an annual survey of raw-fur production, basing its statistics on information supplied by the licensed fur traders. This survey was continued for some years. More recently, annual statements, based on royalties, export tax, etc., have been made available by the provincial game departments (except Prince Edward Island), and these statements are now used in the preparation of the statistics issued annually by the Bureau. In Prince Edward Island, the statistics are based on returns supplied directly to the Dominion Bureau of Statistics by fur traders who deal in furs produced in the Province.

#### 1.—Pelts of Fur-Bearing Animals Produced, with Percentages Sold from Fur Farms, Years Ended June 30, 1929-48

Year	Pelts		Percentage of Value Sold from Fur Farms <sup>1</sup>	Year	Pelts		Percentage of Value Sold from Fur Farms <sup>1</sup>
	Number	Value			Number	Value	
		\$				\$	
1929.....	5,150,328	18,745,473	13	1939.....	6,492,222	14,286,937	40
1930.....	3,798,444	12,158,376	19	1940.....	9,620,695	16,668,348	31
1931.....	4,060,356	11,803,217	26	1941.....	7,257,337	21,123,161	26
1932.....	4,449,289	10,189,481	30	1942.....	19,561,024	24,859,869	19
1933.....	4,503,558	10,305,154	30	1943.....	7,418,971	28,505,033	24
1934.....	6,076,197	12,349,328	30	1944.....	6,324,240	33,147,392	28
1935.....	4,926,413	12,843,341	31	1945.....	6,994,686	31,001,456	31
1936.....	4,596,713	15,464,883	40	1946.....	7,593,416	43,870,541	30
1937.....	6,237,640	17,526,365	40	1947.....	7,486,914	26,349,997	37
1938.....	4,745,927	13,196,354	43	1948.....	7,952,146	32,232,992	37

<sup>1</sup> Approximate.

Ontario leads the provinces in value of fur production, accounting for 25 p.c. of the total in the 1947-48 season. The numbers of pelts taken in both Alberta and Manitoba were higher than in Ontario, but in these provinces muskrat and squirrel, which are lower-priced furs, made up the major portion of the total while in Ontario the more valuable mink, beaver and fox pelts brought the total value to a much higher level.

\* Revised in the Agriculture Division, Dominion Bureau of Statistics.

## 2.—Pelts of Fur-Bearing Animals Produced, by Provinces, Years Ended June 30, 1947 and 1948

Province or Territory	1947			1948		
	Pelts	Value	Percentage of Total Value	Pelts	Value	Percentage of Total Value
	No.	\$		No.	\$	
Prince Edward Island.....	35,168	658,962	2.5	40,603	568,715	1.8
Nova Scotia.....	160,935	716,009	2.7	137,248	622,617	1.9
New Brunswick.....	66,113	834,641	3.2	67,071	453,159	1.4
Quebec.....	511,485	3,913,915	14.8	437,459	3,458,928	10.7
Ontario.....	1,142,490	7,005,904	26.6	1,188,531	8,132,455	25.2
Manitoba.....	1,348,730	3,099,159	11.8	1,491,633	6,105,926	19.0
Saskatchewan.....	1,086,464	2,303,554	8.7	1,181,662	3,500,943	10.9
Alberta.....	1,837,653	3,738,788	14.2	2,174,744	5,313,956	16.5
British Columbia.....	751,060	2,047,135	7.8	619,543	1,973,874	6.1
Yukon.....	58,777	373,176	1.4	131,227	230,117	0.7
Northwest Territories.....	488,039	1,658,754	6.3	482,420	1,872,302	5.8
<b>Canada.....</b>	<b>7,486,914</b>	<b>26,349,997</b>	<b>100.0</b>	<b>7,952,146</b>	<b>32,232,992</b>	<b>100.0</b>

The average price of most kinds of pelts taken in 1947-48 was a little lower than in 1946-47. All types of fox pelts, with the exception of blue fox, decreased, silver fox dropping from \$17.21 per pelt to \$10.33 and new-type fox from \$28.62 to \$18.20. Standard mink was also down from \$19.61 to \$16.77 and mutation mink from \$27.48 to \$20.01. On the other hand, the average value of beaver pelts was \$29.46 in 1946-47 as compared with \$32.36 in the later year, muskrat rose from \$1.94 to \$2.67 and squirrel from 44 cents to 62 cents.

## 3.—Pelts of Fur-Bearing Animals Taken, by Kinds, Years Ended June 30, 1947 and 1948

Kind	1947			1948		
	Pelts	Total Value	Average Value	Pelts	Total Value	Average Value
	No.	\$	\$	No.	\$	\$
Badger.....	2,090	3,293	1.58	1,034	1,380	1.33
Bear, white.....	150	3,840	25.60	246	6,530	26.54
Bear, unspecified.....	1,150	2,904	2.53	827	2,257	2.73
Beaver.....	127,622	3,760,045	29.46	135,629	4,382,241	32.36
Cat, domestic.....	50	25	0.50	31	16	0.50
Chinchilla.....	64	2,240	35.00	—	—	—
Coyote or prairie wolf.....	24,114	90,167	3.74	21,728	64,787	2.98
Ermine (weasel).....	524,126	844,589	1.61	528,029	1,201,271	2.27
Fisher.....	4,189	162,483	38.79	2,823	102,230	36.21
Fitch.....	500	1,748	3.50	231	739	3.20
Fox, blue.....	3,765	59,720	15.86	2,185	34,775	15.92
Fox, cross.....	14,700	140,426	9.55	6,556	36,716	5.60
Fox, red.....	85,274	325,249	3.81	46,464	120,854	2.60
Fox, silver.....	120,927	2,080,668	17.21	128,385	1,583,006	12.33
Fox, new-type.....	37,910	1,085,316	28.62	50,222	914,266	18.20
Fox, white.....	67,314	907,920	13.49	55,423	616,210	11.12
Fox, other.....	87	444	5.10	129	438	3.40
Lynx.....	8,151	193,132	23.69	6,582	128,188	19.48
Marten.....	20,661	670,412	32.45	15,090	415,898	27.56
Mink, standard.....	437,343	8,574,488	19.61	621,603	10,426,077	16.77
Mink, mutation.....	5,261	144,580	27.48	32,903	658,507	20.01
Muskrat.....	2,795,687	5,431,833	1.94	3,569,157	9,518,064	2.67
Nutria.....	30	90	3.00	8	10	1.25
Otter.....	11,730	290,446	24.76	11,974	296,410	24.75
Rabbit.....	180,170	144,994	0.80	124,801	57,320	0.46
Raccoon.....	24,406	53,476	2.19	24,244	63,062	2.60
Skunk.....	73,901	62,380	0.84	19,096	12,770	0.67
Squirrel.....	2,911,413	1,288,751	0.44	2,543,798	1,577,887	0.62
Wild cat.....	1,365	6,837	5.01	1,265	3,480	2.75
Wolf.....	2,177	12,613	5.79	1,231	3,539	2.87
Wolverine.....	587	4,888	8.33	452	4,064	8.99
<b>Totals.....</b>	<b>7,486,914</b>	<b>26,349,997</b>	<b>...</b>	<b>7,952,146</b>	<b>32,232,992</b>	<b>...</b>



**Fur Farm Statistics.**—There was a reduction in the number of fur farms in 1947, there being 6,147 as compared with 6,797 in 1946. The decline was in fox farms though the number of mink farms increased by 5 p.c. The demand for short-haired furs continued, but that for long-haired furs was not as high as in pre-war years. Despite the decline in total number of farms the value of land and buildings used for fur animals increased 7 p.c. over the 1946 value, but the capital value of the live animals decreased 14 p.c.

#### 4.—Fur Farms, Land and Buildings, and Fur-Bearing Animals, by Provinces, 1945-47

Province	Fur Farms			Values of Land and Buildings			Values of Fur-Bearing Animals		
	1945	1946	1947	1945	1946	1947	1945	1946	1947
	No.	No.	No.	\$	\$	\$	\$	\$	\$
P. E. Island.....	567	503	383	646,985	614,030	505,864	914,216	574,222	312,027
Nova Scotia.....	380	350	316	231,177	249,293	216,730	441,229	421,333	265,061
New Brunswick....	426	383	296	273,795	274,915	218,391	651,438	467,125	259,651
Quebec.....	2,087	1,768	1,374	1,682,790	1,751,435	1,693,621	2,935,726	2,595,564	1,982,341
Ontario.....	1,089	1,348	1,425	1,953,493	2,490,908	2,878,978	3,467,485	4,318,112	4,418,462
Manitoba.....	528	638	655	1,497,892	2,021,523	2,372,955	2,115,805	2,367,444	2,122,403
Saskatchewan.....	479	467	414	650,016	935,260	1,027,878	1,304,476	1,357,211	985,196
Alberta.....	774	1,027	940	1,655,825	2,383,295	2,360,530	2,691,959	3,049,500	2,468,316
British Columbia...	260	313	344	549,299	831,831	1,070,327	890,424	1,184,776	1,302,492
<b>Totals.....</b>	<b>6,590</b>	<b>6,797</b>	<b>6,147</b>	<b>9,141,272</b>	<b>11,552,490</b>	<b>12,345,274</b>	<b>15,412,758</b>	<b>16,335,287</b>	<b>14,115,949</b>

#### 5.—Fur-Bearing Animals on Fur Farms, as at Dec. 31, 1944-47

Kind of Animal	1944		1945		1946		1947	
	No.	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$
Chinchilla.....	263	100,700	402	127,050	1,285	668,020	4,040	1,578,400
Coyote.....	17	266	—	...	2	30	2	20
Fisher.....	115	13,860	160	18,835	192	24,285	148	17,871
Fitch.....	153	1,185	189	1,143	170	1,375	112	840
Fox, blue.....	2,357	251,875	3,252	354,369	3,560	324,384	2,344	82,665
Fox, cross.....	603	23,572	497	22,350	324	7,238	186	3,110
Fox, new-type.....	28,158	2,493,602	35,297	3,020,387	37,235	2,213,688	25,040	1,031,060
Fox, red.....	551	9,718	557	7,375	399	3,969	197	1,402
Fox, silver.....	71,121	3,707,483	68,277	3,380,426	57,711	2,111,301	36,685	1,048,991
Fox, other.....	20	1,835	19	1,685	40	2,605	72	4,095
Lynx.....	—	...	14	1,700	6	300	4	250
Marten.....	291	28,312	305	30,308	352	36,790	344	31,489
Mink.....	144,166	4,907,501	200,851	8,439,144	274,670	10,936,409	285,128	10,311,507
Nutria.....	219	6,925	201	6,049	110	3,660	208	3,238
Raccoon.....	169	2,076	193	1,917	173	1,226	156	1,001
Skunk.....	2	4	6	20	4	7	2	10
<b>Totals.....</b>	<b>248,205</b>	<b>11,548,914</b>	<b>310,229</b>	<b>15,412,758</b>	<b>376,233</b>	<b>16,335,287</b>	<b>354,668</b>	<b>14,115,949</b>



## 6.—Values of Fur-Bearing Animals and of Pelts Sold from Fur Farms, 1944-47

Kind of Animal	1944		1945		1946		1947	
	Animals	Pelts	Animals	Pelts	Animals	Pelts	Animals	Pelts
	\$	\$	\$	\$	\$	\$	\$	\$
Chinchilla.....	3,800	—	23,225	—	295,130	—	238,820	—
Coyote.....	100	360	—	—	—	—	—	—
Fisher.....	8,652	2,909	3,590	544	9,260	637	7,150	2,125
Fitch.....	240	1,159	679	997	484	1,088	113	676
Fox, blue.....	28,675	125,005	37,305	151,122	18,998	83,397	4,210	52,740
Fox, cross.....	1,170	29,565	314	19,080	190	10,119	160	4,490
Fox, new-type.....	316,753	1,091,036	312,967	1,633,938	142,887	1,388,526	38,451	1,389,998
Fox, red.....	564	8,953	442	6,138	312	4,269	25	2,203
Fox, silver.....	248,484	3,093,065	301,897	2,956,725	171,499	1,723,633	43,779	1,482,328
Fox, other.....	—	1,108	185	674	225	964	276	618
Marten.....	11,253	2,820	8,440	1,280	15,484	510	2,370	1,479
Mink.....	520,530	3,884,243	1,064,018	5,505,272	1,844,627	3,571,314	1,039,379	8,780,456
Nutria.....	925	272	375	257	475	103	140	270
Raccoon.....	93	369	63	447	67	121	84	113
<b>Totals.....</b>	<b>1,141,239</b>	<b>8,240,864</b>	<b>1,753,500</b>	<b>10,276,474</b>	<b>2,499,638</b>	<b>6,784,681</b>	<b>1,374,957</b>	<b>11,717,496</b>

## Section 4.—Marketing and Foreign Trade

The first Canadian fur auction sale was held at Montreal in 1920 and since then that city has been the leading Canadian fur mart. To-day, auction sales are also held at Vancouver, B.C., Edmonton, Alta., Regina, Sask., and Winnipeg, Man. At Regina the Saskatchewan Government maintains a Fur Marketing Service to assist the producers in that Province.

**Grading.**—In 1939 the Federal Department of Agriculture introduced the grading of furs. One of the Department's main objectives in grading is to secure uniformity so that furs may be purchased by grade without the necessity of buyers from other countries personally examining the pelts. Grading offers many advantages to the producer as well as to the trade in general. It educates the rancher as to the proper value of his pelts, and creates an incentive to improve the quality of the product; it furnishes guidance in the planning of future matings, aids in raising the standard of quality of the entire crop of pelts and helps in advancing the level of prices for high-quality pelts.

**Exports and Imports.**—Prior to the Second World War Canada marketed her fur pelts mainly in the United Kingdom but, since that market was practically dormant during the war years, the fur trade was carried on for the most part with the United States. A definite revival of trade with the United Kingdom was shown in 1946, 1947 and 1948.

The Canadian fur trade, both exports and imports, is chiefly in undressed furs, the value of dressed and manufactured furs going out of Canada or coming in making up a comparatively small proportion of the total. A good part of the exports consists, of course, of those furs which Canada produces in greatest abundance, mink being the most valuable, followed by beaver, muskrat and fox. On the other hand, such furs as Persian lamb, certain types of muskrat, rabbit and squirrel, opossum and raccoon, which are not produced to any extent in Canada, make up the major portion of the imports.

Total exports and imports of all furs to and from the United States, the United Kingdom and all countries are given for the years 1945-48 in Part I, Section 3 of the Foreign Trade Chapter, Tables 13 and 14.

### 7.—Exports and Imports of Furs, by Kinds, 1948

Kind of Fur	Exports			Kind of Fur	Imports		
	United Kingdom	United States	All Countries		United Kingdom	United States	All Countries
	\$	\$	\$		\$	\$	\$
Undressed—				Undressed—			
Beaver.....	1,015,390	3,177,931	4,208,077	Fox.....	13,489	71,990	94,240
Ermine.....	356,051	372,227	712,056	Kolinsky.....	—	116,237	116,237
Fisher.....	60,310	70,511	131,121	Marine.....	—	733	20,566
Fox, all types....	2,019,071	1,000,579	3,304,392	Mink.....	12,899	1,078,410	1,188,694
Lynx.....	48,429	57,166	108,232	Muskrat.....	—	5,032,404	5,130,066
Marten.....	175,441	203,024	381,560	Opossum.....	—	30,643	32,703
Mink.....	1,474,205	7,213,960	8,701,749	Persian lamb....	84,188	7,800,435	8,387,320
Muskrat.....	1,274,217	2,087,106	3,367,442	Rabbit.....	253	2,037,350	3,240,855
Otter.....	125,368	103,006	228,664	Raccoon.....	—	709,956	709,956
Rabbit.....	589	60,344	60,933	Sheep and lamb..	—	256,975	560,628
Raccoon.....	409	111,148	112,007	Squirrel.....	—	678,683	687,820
Seal.....	—	70,263	70,603	Viscacha.....	—	—	4,442
Skunk.....	7,633	9,742	17,375	Other.....	45,671	1,453,813	1,806,828
Squirrel.....	1,287,754	70,598	1,369,422				
Weasel.....	63,317	245,462	314,956	Dressed—			
Wolf.....	50,682	25,644	80,714	Rabbit.....	—	—	139,572
Other.....	18,952	69,756	92,261	Other.....	112,693	415,937	536,150
Dressed—				Manufactured.....	168,612	1,470,317	1,911,709
Fox.....	—	1,220	14,533				
Other.....	4,210	120,245	212,714	Totals.....	437,805	21,153,883	24,567,756
Manufactured.....	3,940	544,796	628,971				
Totals.....	7,965,968	15,615,058	24,117,782				

### Section 5.—The Fur-Processing Industry\*

The rather general term "fur processing" includes both the fur-dressing and -dyeing industry and the fur goods industry. The former is concerned with the dressing or dyeing of pelts, on a custom basis, while the latter is a manufacturing industry that actually makes up fur goods such as coats, scarves and gloves.

Separate statistics of the fur-dressing and -dyeing industry were first obtained in 1917, when 12 establishments with 512 employees reported receipts of \$1,071,805. No analysis by type of the various skins treated was obtained before 1924, when eight establishments reported a revenue of \$1,120,895, the cost of dyes, chemicals and other materials used amounted to \$162,013 and salaries and wages of \$561,233 were paid to 539 employees. Of the 3,473,909 skins treated in that year, muskrat pelts made up 47 p.c., rabbit 19 p.c. and squirrel 10 p.c. By 1947 the number of skins treated had increased to 10,652,179, rabbit accounting for 44 p.c., muskrat for 31 p.c. and squirrel for 8 p.c. Other types of skins treated fluctuated very widely over the past quarter-century, the numbers being affected not only by climatic conditions under which trapping is carried on but also by the development of fur farming and, above all, by the vagaries of fashion. Principal statistics of the fur-dressing industry for the years 1945, 1946 and 1947 are given in Table 8.

\* Prepared in the Animal Products Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

## 8.—Principal Statistics of the Fur-Dressing Industry, 1915-47

Item	1945	1946	1947
Establishments.....No.	20	24	24
Employees on Salaries—			
Male.....No.	116	143	140
Female.....“	44	39	37
Employees on Wages—			
Male.....No.	897	1,126	920
Female.....“	360	343	262
Salaries paid.....\$	408,762	444,879	528,559
Wages paid.....\$	1,705,788	2,031,055	1,825,392
Cost of materials used (dyes, chemicals, etc.).....\$	792,455	1,026,978	781,590
Pelts treated.....No.	11,079,292	12,875,683	10,652,179
Amount received for treatment of furs.....\$	3,740,854	5,010,539	4,530,478

Statistics for the fur-goods industry, on a comparable basis, are available from 1921, when 219 establishments reported a gross value of production of \$13,639,609, employees numbering 2,682 who received \$3,037,605 in salaries and wages. Cost of materials used in the manufacturing process totalled \$8,118,833. Principal statistics for the industry for the years 1945, 1946 and 1947 are given in Table 9.

## 9.—Principal Statistics of the Fur-Goods Industry, 1945-47

Item	1945	1946	1947
Establishments.....No.	571	593	616
Employees on Salary—			
Male.....No.	1,112	1,162	1,193
Female.....“	371	370	377
Employees on Wages—			
Male.....No.	2,190	2,518	2,450
Female.....“	2,109	2,214	2,074
Salaries paid.....\$	3,159,814	3,380,782	3,740,915
Wages paid.....\$	6,029,153	7,131,892	7,665,649
Cost of materials used.....\$	35,488,515	39,394,072	36,912,929
Value of products.....\$	51,032,829	57,737,516	57,541,628

Changes in living habits and standards that have taken place in the past quarter-century are reflected in the type of goods produced by the fur-goods industry. For example, in 1921 there were 31,604 ladies' fur coats and jackets produced whereas in 1947 the industry turned out 213,711 garments of this type. On the other hand there were 4,655 men's fur coats and 1,037 men's fur-lined coats manufactured in 1921 but only 2,102 such coats in 1947. In 1921 horse-drawn sleighs were still reasonably plentiful and 4,461 fur robes were produced but by 1947 production had dropped to 58.

# CHAPTER XIV.—THE FISHERIES

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ments.....			

NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

The waters off Canada's coasts comprise some of the most important fishing grounds of the globe. Those off the Atlantic coast have been continuously exploited by many nations for more than 400 years (see p. 348 of the 1934-35 Year Book). Though Canada's oldest industry is carried on in inland waters as well as on both the Pacific and Atlantic coasts, it does not loom very large in the economic life of the nation as a whole, for only about 1 p.c. of the gross national income comes from the marketed products of the fisheries. However, the industry is of the greatest importance to many of the communities along Canada's many thousands of miles of coastline. It provides 130,000 people with full or seasonal employment either in fishing (105,000) or in fish processing (25,000). The Canadian industry ranks among the first ten fishing industries of the world, and Canada with over two-thirds of its catch being sold in foreign markets is one of the world's largest fish exporters.

## Section 1.—The Canadian Fishing Grounds\*

Canada's fishing grounds fall naturally into three main divisions: Atlantic, Pacific and Inland, each with its own special characteristics.

**Atlantic Fisheries.**—The accession of Newfoundland has given back to the Atlantic fisheries of Canada their traditional pre-eminence which was in danger of being lost to the younger fishing industry of the Pacific. The fisheries of Newfoundland, Nova Scotia, New Brunswick, Prince Edward Island and Quebec together account for more than one-half the marketed value of all Canadian fish.

The most valuable Atlantic catch is that of cod, taken by the fishermen of all the five provinces, with Newfoundland and Nova Scotia predominating. Other "groundfish", so called because they feed at the sea bottom, are often taken with the cod. They include haddock, pollock, hake, cusk, rosefish and catfish. Other inhabitants of deep waters caught by Atlantic fishermen are the flat-fish: halibut, plaice, yellowtail, witch, flounder and skate. Lobsters, which come second in value among Atlantic fishery products are mainly caught in the three Maritime Provinces but are also found in the waters of Quebec and Newfoundland. Other types of shellfish are clams and quahaugs, of which New Brunswick and Nova Scotia both produce considerable quantities, oysters (chiefly from New Brunswick and Prince Edward Island) and scallops from Nova Scotia. Mussels, winkles and

\* Revised by the Department of Fisheries, Ottawa.



crabs are marketed on a smaller scale. Of the fish species occurring in schools ("pelagic" fish) and those entering the river estuaries, the herring are the most important. Immature herring landed in southwestern New Brunswick and marketed under the name of 'sardines' are of particular value. Other pelagic fish are the ubiquitous mackerel, smelts which are caught in large numbers off New Brunswick and elsewhere, Atlantic salmon, swordfish and many others. Altogether, more than 30 different kinds of fish, shellfish and marine mammals such as seals and whales, are commercially taken by Canada's Atlantic fishermen. In addition, other marine products such as Irish moss and other sea-grasses are harvested.

There is a fairly clear distinction to be made between two branches of the Atlantic fisheries. The shore fishery, which is the more important, is carried on in waters within 12 or 15 miles of land, while the deep-sea fishery is worked on the 'banks' farther away. Individual fishermen fishing near their homes from small row-boats, sailboats, or motor-boats, produce the bulk of the landings of the shore fisheries. The Labrador Coast fishing is of a special type, being conducted mainly by Newfoundland fishermen who voyage there for the summer. Handlines, and trawl lines with individually baited hooks, are the gear chiefly used in the shore fisheries to catch such fish as cod, haddock and halibut, but in Newfoundland the greater portion of the inshore cod catch is accounted for by cod-traps. Mackerel and herring are captured with seines, trap-nets and gill-nets; lobsters are trapped in "pots"; while smelts are mostly caught in winter in box-nets and bag-nets through holes in the ice. Oysters are gathered from their beds by special rakes or tongs, scallops are landed by drags or dredges.

The traditional deep-sea fishing vessel is the schooner from 70 to 125 tons and beyond in size, nowadays propelled by an engine as well as by sails. It carries 12 to 24 fishermen who, once the fishing grounds are reached, fish in pairs from small boats called "dories", using trawl lines. A comparatively small number of steam trawlers of 250 to 300 tons and many smaller vessels called "daggers" working out of Newfoundland and Nova Scotia ports catch fish in a large bag-like net or "trawl" dragged along the bottom of the sea.

The Atlantic fisherman working, as he does, on his own or as a sharesman, living often in a small community remote from the larger markets and using not very elaborate equipment and traditional methods, has depended on the greatly fluctuating fortunes of weather, fish runs and market conditions for his livelihood. There is now a trend, encouraged by Federal and Provincial Governments and by the co-operative movement, towards improving equipment, fishing methods, and the marketing facilities of the fisheries.

A considerable proportion of the production of the Atlantic fisheries—mainly cod and related species—is traditionally salted and dried, in some places by modern methods, largely for export to the West Indies, South America and the Mediterranean countries. However, modern developments in refrigeration and transport have enabled the fisheries to dispose of an even larger part of the catch of almost all kinds of fish in the fresh or frozen state, mostly on the Canadian and United States markets. Much of this fish is sold as fresh or smoked filets, ready for cooking. A substantial proportion of some species such as lobster, sardines, mackerel, haddock and other ground fish ('chicken haddie'), and tuna are canned and a smaller quantity of Atlantic fish is pickled. Liver and other vitamin oils are extracted from some species. Fertilizer and other non-food products are also manufactured as by-products. Herring provides the bulk of the bait for hand and trawl lines.

**Pacific Fisheries.**—The fisheries of British Columbia, Canada's Pacific Coast Province, are dominated by salmon, which accounts for over one-half the total value. Herring, together with anchovies and the erratic pilchard, contribute between one-fifth and one-quarter, and halibut with other flat-fish (soles, flounders) about one-tenth of the marketed value of the British Columbia catch. Grayfish, soup-fin and other sharks are rich sources of vitamin oil and as such commercially important. Ling and black cod (not related to the true cod) are worth mentioning, and clams, crabs and oysters also provide a small source of income to fishermen. Tuna fishing, a more recent venture, holds fair promise of becoming one of the Coast's more important pursuits. A variety of other aquatic species, ranging from shrimps to whales, are among the catches of the British Columbia fishermen.

Almost all fishing in British Columbia waters is carried on within sight of land, and there are no very large fishing vessels; but even small boats, usually highly powered and equipped with modern mechanical gear, navigational aids and radio, travel long distances up and down the coast following the seasonal movements of the fish and taking advantage of open seasons in widely scattered areas.

Among the typical craft and gear used are the purse-seine boats, owned or chartered by processing companies and operated by a crew of seven or eight who receive a share of the proceeds of the catch. These boats are important in the salmon fishery and account for the bulk of the herring and pilchard catch. The purse-seine net is from 800 to 1,200 ft. in length, and is run off the boat in a circle around the fish and then drawn together under water, purse fashion.

Another important method of salmon fishing is that of using drift gill-nets which are set floating vertically in the water. Small quantities of herring and pilchard are also taken by this method and similar gear is used in the shark fishery.

Hook and line methods of fishing are found in many branches of the Pacific Coast fisheries. Trollers catch salmon and tuna. Lines set along the sea bottom are the chief halibut fishing gear and are also used to catch other ground-fish and, to some extent, sharks. Handlines are used by men fishing from small boats for ling-cod, rockfish, shark, etc. Small trawl nets, pulled along the sea bottom by power boats or druggers, bring in most of the soles and gray cod and a variety of other fish.

Mobility, modern equipment and efficient marketing facilities characterize the Pacific fisheries which show a high degree of organization both among the fishermen and among the processing companies.

The greater part of the Pacific salmon catch is canned. The product enjoys a world-wide reputation for quality and is exported to many countries. Fresh and frozen salmon, halibut and many other species, including shellfish, are supplied to Canadian and United States markets. Herring is turned largely into fish meal and oil, as are the waste materials produced in the canning and filleting of other types of fish. The extraction of vitamin oils from livers and viscera is another important and growing branch of the industry.

**Inland Fisheries.**—Apart from being a great sport-fishing area, the inland waters of Canada, which comprise more than one-half the fresh water of the globe, also support important commercial fisheries, particularly in Ontario, the Prairie Provinces and as far north as Great Slave Lake in the Northwest Territories. Quebec, New Brunswick and Yukon have commercial inland fisheries on a smaller scale.

# PRINCIPAL PACIFIC FISH

HERRING  
**SALMON**  
HALIBUT  
SOLES  
OYSTERS  
LING COD  
GRAYFISH (livers)

# PRINCIPAL INLAND FISH

WHITEFISH  
PICKEREL  
TULLIBEE  
PIKE  
TROUT  
HERRING  
SAUGERS  
PERCH  
BLUE PICKEREL

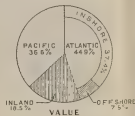
# COMMERCIAL FISHING RESOURCES OF CANADA

NOTE: The varieties of fish shown in the labels are ranked according to quantities caught during 1947. The size of type indicates roughly the relative landed value.

# PRINCIPAL FISH LANDED 1947

TONS		MILLIONS OF DOLLARS
82,434	<b>SALMON</b>	14
15,842	<b>LOBSTERS</b>	12
118,355	<b>COD</b>	10
189,230	<b>HERRING</b>	8
13,018	<b>HALIBUT</b>	6
7,231	<b>PICKEREL</b>	4
8,011	<b>WHITEFISH</b>	3
50,820	<b>SARDINES</b>	2
15,779	<b>HADDOCK</b>	1
2,773	<b>SMELTS</b>	1
13,131	<b>MACKEREL</b>	1
2,445	<b>TROUT</b>	1

# REGIONAL COMPARISON OF FISH LANDED FIVE-YEAR AVERAGES



# PRINCIPAL ATLANTIC FISH

## INSHORE

HERRING  
COD  
SARDINES  
**LOBSTERS**  
MACKEREL  
HAKE AND CUSK  
POLLOCK  
HADDOCK  
OYSTERS  
SMELTS  
SALMON  
HALIBUT  
SWORDFISH

## OFFSHORE\*

COD  
HADDOCK  
YELLOWTAIL  
POLLOCK  
HAKE AND CUSK  
SWORDFISH  
HALIBUT

\*The "Offshore Fishing" represents the catch by steam trawlers and vessels of 40 tons or over fishing on offshore grounds

Note: Saskatchewan, Alberta, Yukon and the Northwest Territories are not shown on this map. The value of the commercial fisheries in these areas is comparatively small. However, quantities of whitefish, pickerel, trout, pike and tullibee are marketed each year.





A great variety of fish is taken in these inland waters; whitefish, which occur in all the provinces, head the list, followed by lake-trout and pickerel or doré. Other species are sometimes of considerable local importance, e.g., saugers in Manitoba and eels in Quebec.

The Great Lakes, and the larger bodies of water in the Prairie Provinces and Great Slave Lake in the Northwest Territories are fished extensively in the summer, the fishermen using boats up to 46 ft. in length (e.g., the whitefish boats on Lake Winnipeg) as well as skiffs and canoes. Gill-nets and pound-nets are the chief gear. Production is channelled through permanent shore stations with docking, icing, cooling, grading and warehousing facilities.

Winter fishing on large and small lakes with gill-nets set through holes in the ice is carried on by teams of men many of whom are only part-time fishermen with their chief occupation in farming, lumbering or the fur industries. Accommodation for the fishermen as well as handling facilities are available at hutted camps or in the form of mobile cabooses. Dog teams, horses, cars and snowmobiles are used to haul fish and equipment.

Most of the catch is marketed fresh or frozen, with a large proportion going south across the Border.

## Section 2.—Governments and the Fisheries\*

### Subsection 1.—The Federal Government

The Federal Government has the sole legislative authority over both the coastal and inland fisheries of Canada [British North America Act 1867, sect. 91 (12)]. Under the Act laws are made for the protection and conservation of the fisheries in all the provinces. The provinces, however, have property rights in the non-tidal fisheries. The Federal and Provincial Governments, under various arrangements, have divided the administrative (but not the legislative) authority over fisheries. The Federal Government legislates for and administers the fisheries in all Canadian tidal waters, except those of Quebec. In Quebec, the Provincial Government undertakes the enforcement of federal laws in respect of both tidal and non-tidal fisheries.

In the non-tidal waters of Canada the Federal Government administers the fisheries of Yukon, the Northwest Territories, Nova Scotia, New Brunswick and Prince Edward Island. The non-tidal fisheries of the other provinces are administered by the provincial authorities which enforce, on behalf of the Federal Government, the federal laws regulating the fisheries.

**The Department of Fisheries.**—Since Confederation the federal fishery authorities by their *protective activities* have helped to conserve the great natural resources on which the Canadian fishing industry is based. In accordance with legislation, the Federal Department of Fisheries regulates the catch of many species of fish by close seasons, size limits, closed areas, gear limitations and licensing. A staff of field officers and guardians, as well as protection vessels and patrol boats, is employed to supervise the application of conservation measures.

The Department is equally concerned in counteracting developments that might decrease fish populations and in assisting actively in maintaining and developing the runs by *fish culture*. The Fish Culture Development Branch undertakes

\* Revised by the Department of Fisheries, Ottawa.

for Atlantic salmon, various species of trout, black bass and others; the collection, allotment, transfer and incubation of eggs; the feeding and raising of fry, fingerlings and older fish; their distribution; experimentation with foods and equipment; and selective breeding. This Branch also deals with river management, control of fish predators, application of research, and the encouragement and maintenance of fish life generally. It also carries out the removal of obstructions hampering the natural movement of fish, the construction of fishways to circumvent natural and artificial obstacles, modification of streams to improve spawning beds and takes steps against the pollution of rivers and streams of importance to the fishing industry.

The Department, through its *Inspection Services*, operated partly on a voluntary and partly on a compulsory basis, helps the fishing industry to maintain a high standard of quality and facilitates the marketing of fishery products by proper grading.

In continuation of a wartime scheme, the Federal Government encourages the building of certain types of 'dragers' on the Atlantic Coast by means of *subsidies* (\$165 per gross ton in 1949). It subsidizes the construction of bait-freezing and storage facilities on the East Coast to the extent of 75 p.c. of the construction cost (up to \$10,000) of the storage space provided and pays a small annual bounty to Canadian deep-sea fishermen and vessel owners. This bounty represents the interest on the amount awarded to Canada in 1871 in recognition of certain fishing privileges accorded to the United States.

The Economics and Statistics Branch undertakes *economic studies* of problems affecting the fisheries and makes its findings available to the industry and trade. It has a comprehensive program of marketing research and, in co-operation with the Department of Trade and Commerce and its Trade Commissioner Service, is undertaking work on the development and extension of export markets for Canadian fish. An investigation is also being made of the income position of fishing communities and of the factors affecting the development of the productive capacity of the fishing industry. The Branch also assists the Dominion Bureau of Statistics in expanding and improving the statistical coverage of the fisheries.

The Information and Educational Services of the Department are provided by another Branch which assists in furthering the progress of the Canadian fisheries by increasing public knowledge of, and interest in, the country's fishery resources, their administration, development, possibilities and products; it also promotes by programs of instruction of various kinds more efficient methods of operation and the greater use of Canadian fish products.

Federal Government assistance in the education of fishermen is given by payments to educational institutions that have agreed to carry out adult educational work among fishermen, particularly to prepare them for taking part in co-operative production and disposal of their products. Grants authorized for 1947-48 totalled \$80,000, of which \$46,000 were allocated to St. Francis Xavier University for the Maritime Provinces, \$24,000 to the College of Ste. Anne de la Pocatière for the Gaspé Peninsula and the north shore of the Gulf of St. Lawrence, and \$10,000 to the University of British Columbia.

**The Fisheries Research Board.**—Under the Fisheries Research Board of Canada Act, 1937 (c. 37) this Board has charge of all federal fishery research stations in Canada, the conduct and control of investigations of practical and economic problems connected with marine and freshwater fisheries, flora and fauna, and such other work as may be assigned to it by the Minister of Fisheries. The Board

consists of 15 members appointed for five-year terms by the Minister. Nine of the members are scientists from universities or other institutions engaged in research work bearing on fishery problems; four members represent the fishing industry; and two members are from the Federal Department of Fisheries. The Board's activities are financed from moneys appropriated by Parliament. It may also use funds received for its work through bequests, donations and from other sources.

The Board operates seven main scientific stations, four dealing with biological problems and three, designated as experimental stations, dealing with the technological problems of the fishing industry. The biological stations are: the Biological Station at St. John's, Newfoundland; the Atlantic Biological Station, St. Andrews, N.B.; the Central Fisheries Research Station, Winnipeg, Man.; and the Pacific Biological Station, Nanaimo, B.C. The technological stations are: the Atlantic Fisheries Experimental Station, Halifax, N.S.; the Gaspe Fisheries Experimental Station, Grand River, Que.; and the Pacific Fisheries Experimental Station, B.C.

Special investigations in the Northwest Territories are administered directly from the headquarters of the Board, and are undertaken as problems arise. An Eastern Arctic Fisheries Investigation is also being conducted in Ungava Bay and Hudson Strait.

The Executive Committee of the Board has direction and supervision of investigations which are of sufficient importance to the fisheries of Canada to be initiated by the Board or assigned to it by the Minister. This Committee is assisted by sub-executive committees, one for the Atlantic Stations, one for the Gaspe Station, and one for the Pacific Stations; also, by advisory committees, one for the Central Research Station and one for the Eastern Arctic Fisheries Investigation. Associated committees deal with special matters related to the work of the Board.

Biological studies and investigations are carried on in the interest of conservation, development and management of the fishery resources of Canada. The studies provide knowledge of the life history, growth rate, reproduction, distribution, enemies, diseases, etc., of the fishes, shellfish, and sea mammals. The close and important relationship of these studies and those of the physical-chemical and the biological aspects of oceanography undertaken in co-operation with other organizations are being steadily developed.

The Board's technological investigations in progress at the Experimental Stations are designed to increase knowledge of methods of preservation, processing and of recovery of by-products from fish and other marine organisms. These investigations include plant and product sanitation, design of processing equipment, development of artificial drying and smoking methods, freezing and storage studies, improved methods of quality control of fresh and frozen fish, bacteriology and chemistry of salt fish, and marine oil research.

**The Fisheries Prices Support Board.**—The Board was set up in July, 1947, under the Fisheries Prices Support Act of 1944. It had five members representative of fishermen, management, and government, and is assisted by advisory committees and a full-time staff. Provision was made for the appointment of a sixth member upon the entry of Newfoundland into Confederation.

The Board functions under the direction of the Minister of Fisheries. It promotes orderly adjustment in the fishing industry from wartime to peacetime conditions, endeavours to ensure adequate and stable returns for fisheries and seeks to secure a fair relationship between the returns from fisheries and those from other occupations.



To achieve its objects, the Board has authority to buy quality fishery products under prescribed conditions and to dispose of them by sale or otherwise, or to pay to producers the difference between a price prescribed by the Board and the average price the product actually commands. The Board, however, has no power to control prices nor has it any jurisdiction over operations in the fishing industry or fish trade.

Money necessary for dealings in fishery products is available to the Board from the Consolidated Revenue Fund to a maximum aggregate amount of \$25,000,000 but only on the recommendation of the Treasury Board and the authorization of the Governor in Council. Administrative expenses are met from a parliamentary appropriation voted for this purpose.

The Board exercised its power to buy fish in 1948 and 1949. On the first occasion it assisted in the orderly reduction of the greatly expanded wartime canning activities on the East Coast by the purchase of a proportion of the pack at a cost of about \$1,250,000. Most of the fish purchased was donated for charitable and relief purposes. In the spring of 1949, the Board took over surplus stocks of frozen lake fish, valued at approximately \$285,000, from the fishermen in the Prairie Provinces. In no case does the Board sell the fish to dealers for disposal in Canada or for export at less than the total cost incurred by the Board. About two-thirds of this fish was sold for reduction to fish meal and most of the remainder as fox and mink feed.

**International Agreements.**—Many of the grounds fished by Canadians are also frequented by fishermen from other nations, particularly from the United States. This problem and others, e.g., that of the migration of fish between Canadian waters and those outside the jurisdiction of the Government of Canada, are the subject of international agreements.

Since 1933, under the *modus vivendi* which grew out of an unratified treaty of 1888, United States fishing vessels have been issued annual licences permitting entry to Canadian Atlantic ports for the purchase of bait and other supplies. (An outline of the history of this development will be found on pp. 351-353 of the 1934-35 Year Book.) Port privileges on an annual basis have also been extended on the Pacific Coast to United States halibut vessels for some years past and, more recently, to United States vessels fishing for black cod. Canadian fishing vessels have been granted similar privileges in United States ports in Alaska. The privileges granted by Canada include permission to tranship catches, buy bait, ship crews, etc.

Two international Commissions, the membership and cost of which are shared equally between Canada and the United States, have been set up on the Pacific Coast to deal with the halibut and the Fraser River sockeye salmon fisheries, respectively. Investigations carried out under the Commissions' auspices, subsequent regulation and limitation of catches and, in the case of salmon, the construction of fishways, appear to have been successful in arresting and reversing an earlier trend towards depletion of these fisheries. Another case of restoring a depleted marine resource by international agreement and action is that of the Pacific fur seals. The provisions of a quadripartite Agreement of 1911 between Canada, the United States, Russia and Japan continue to apply by virtue of a provisional Canadian-United States Agreement of 1942, although the original treaty has lapsed after being abrogated by Japan in 1941.



A step towards international action in the investigation and conservation of the fisheries in the Northwest Atlantic has been taken by the Governments of Canada, the United States and eight interested European countries that signed an International Convention for this area in February, 1949. After ratification, an International Commission and panels for specified sub-areas will be established which, on the basis of scientific investigations, may make proposals to the interested governments for joint regulation of the fisheries in the interest of optimum conservation of the stocks of fish.

A Convention, signed in April, 1946, by Canada and the United States, but not yet ratified, provides for the establishment of a Joint Commission to develop a comprehensive plan for the effective management and maintenance of the fisheries resources in the Great Lakes, connected waters, and part of the St. Lawrence River.

Canada is one of the 15 countries which are parties to the 1946 International Convention for the Regulation of Whaling which governs in some detail the conduct of whaling by fishermen of all the participating countries.

The Permanent International Council for the Exploration of the Sea, established in 1902, to which Canada sends an observer, co-ordinates oceanographic and fishery biological investigations conducted by its members in the Eastern North Atlantic, the North Sea and the Baltic Sea.

The most comprehensive of the international organizations having to do with fisheries is the Food and Agriculture Organization of the United Nations (FAO).<sup>\*</sup> In the field of fisheries, the FAO concerns itself primarily at present with the collection, analysis, interpretation, discussion and dissemination of information. This involves statistics (including statistical standards), information on fish resources, cultural and fishing methods, and technological information. The FAO Fisheries Division also organizes studies of economic conditions relating to certain fish commodities that have been suffering from chronic difficulties, assists in the organization of regional research projects, and is doing preparatory work on international commodity standards.

### Subsection 2.—The Provincial Governments

A general outline of the work undertaken by the Provincial Governments in connection with the administration of commercial and game fisheries, assistance to the industry, educational and research work, and conservation may be found at pp. 279-286 of the 1945 Year Book. The union of Newfoundland with Canada in 1949 added a new provincial administration whose work is covered in the paragraphs below. Fishery statistics prior to Union are given in Section 4 at pp. 502-504.

**The Fisheries of the Province of Newfoundland.**—Newfoundland's cod fishery is world-famous and has been the mainstay of the Island since its first permanent settlement. Apart from cod the waters of Newfoundland yield an abundant harvest of fish which are in commercial demand, notably herring, salmon and lobster. Smelts, haddock, halibut, rosefish, caplin, mackerel, turbot, squid, etc., are also plentiful. Both the whale and seal fisheries are of major economic importance. Indeed, the fisheries of the Island of Newfoundland and of the Coast of Labrador, including of course the deep-sea fishery on the widely known Newfoundland Banks, involve nearly all the varieties of fish found in the colder

<sup>\*</sup> For an account of the work of the FAO in other fields, see pp. 402-403.

waters of the Northern Hemisphere. The consistency of yield is very high, measured by the total annual catch on all parts of the coast over a long period of years. Full advantage has not yet been taken of these rich resources and there is little doubt that with intensive modern development the fisheries will become an increasing source of wealth to the Province and to Canada as a whole.

Prior to government by Commission in 1934, the governing authority of the Newfoundland fisheries was vested, subject to the Legislature, in the Minister of Marine and Fisheries, who with his Department was charged with the duty of supervising the conduct of the various fisheries and of issuing the necessary regulations.

The First World War created a temporary wave of prosperity in the fisheries of Newfoundland, but soon after the War a downward trend in value took place, so that by 1932 the industry was in an impoverished condition. In April, 1936, the Newfoundland Fisheries Board was brought into being, as a body corporate, by Act assented to by the then Governor of Newfoundland. The Board was given wide powers over the marketing of Newfoundland's fish and fishery products and, under the Commissioner for Natural Resources, was charged with the performance of most of the usual functions of a government department of fisheries. Its two prime objectives were to bring order into the chaotic conditions which confronted those engaged in the marketing of Newfoundland fish and fishery products and to study and encourage greater development of the Island's fishery resources. These objectives have been gradually attained, with consequent improvement of both the lot of the producer and the general economic position of the Island.

In accordance with the "Terms of Union of Newfoundland with Canada" in 1949 the federal fisheries services have been extended to the new Province. The Newfoundland services existing prior to Union in such fields as the protection and encouragement of the fisheries and the operation of bait services have been taken over by the federal authorities in accordance with these terms. General fisheries administration in the Province is now the responsibility of the Federal Department of Fisheries but the laws relating to export marketing of salted fish continue to be administered by the Newfoundland Fisheries Board, now operating as a Federal agency responsible to the Minister of Fisheries. Alteration or repeal of any of these laws will be conditional during the five years following Union, upon the consent of the Lieutenant-Governor of the Province of Newfoundland. Employees of the Board became employees of the Federal Department of Fisheries at Mar. 31, 1949.

A Newfoundland Fisheries Branch has been created in the Federal Department of Fisheries at Ottawa. Its Director also acts as liaison officer between the Newfoundland Fisheries Board and the Department.

### Section 3.—Fishery Statistics\*

#### Subsection 1.—Primary Production

A century ago, the commercial fishing industry of Canada was in its infancy; the estimated value of the catch in 1844 was \$125,000, but for 1947 it reached nearly a thousand times that figure, \$123,900,000, the highest ever recorded. Growth was fairly steady until the second decade of the present century, when the First World War caused a sharp rise in prices, and the value of the products of the

\* Revised in the Fisheries Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

fisheries leaped from \$36,000,000 in 1915 to \$60,000,000 in 1918. The depression of the 1930's brought about an even sharper fall in value but, during the years immediately preceding the Second World War, the industry regained stability, and the upswing of prices from 1941 onwards contributed largely to the attainment of a new high value mark in each succeeding year. The 1948 figure showed an increase of \$15,876,617, or 13 p.c., over that for 1947.

### 1.—Marketed Values of All Products of the Fisheries, 1870-1948

Year	Value	Year	Value	Year	Value
	\$		\$		\$
1870.....	6,577,391	1925.....	47,942,131	1939.....	40,075,922
1875.....	10,350,385	1929.....	53,518,521	1940.....	45,118,887
1880.....	14,499,979	1930.....	47,804,216	1941.....	62,258,997
1885.....	17,722,973	1931.....	30,517,306	1942.....	75,116,933
1890.....	17,714,900	1932.....	25,957,109	1943.....	85,594,544
1895.....	20,199,338	1933.....	27,496,946	1944.....	89,439,508
1900.....	21,557,639	1934.....	34,022,323	1945.....	113,871,100
1905.....	29,479,562	1935.....	34,427,854	1946.....	121,124,733
1910.....	29,965,142	1936.....	39,165,055	1947.....	123,900,303
1915.....	35,860,708	1937.....	38,976,294	1948.....	139,776,920 <sup>p</sup>
1920.....	49,241,339	1938.....	40,492,976		

For some years British Columbia and Nova Scotia have held first and second places, respectively, among the provinces for marketed value of products, usually accounting together for about two-thirds of the total for Canada. In 1947, British Columbia again led with 47 p.c. of total value, followed by Nova Scotia with 21 p.c., and New Brunswick with 14 p.c.

### 2.—Marketed Values of All Products of the Fisheries, by Provinces, 1942-47

Province or Territory	1942	1943	1944	1945	1946	1947
	\$	\$	\$	\$	\$	\$
Prince Edward Island.....	1,639,539	2,860,946	2,598,975	3,076,811	4,470,877	2,897,284
Nova Scotia.....	15,287,482	21,684,435	23,674,055	30,706,900	34,270,762 <sup>1</sup>	26,658,916
New Brunswick.....	7,132,420	11,128,864	11,968,692	13,270,376	16,419,983	17,131,696
Quebec.....	4,194,092	5,632,809	5,361,567	7,907,692	7,927,022	5,217,009
Ontario.....	4,135,205	5,292,268	4,938,193	7,261,661	6,296,658	5,403,662
Manitoba.....	3,577,616	4,564,551	3,581,795	4,263,670	4,871,037	5,329,448
Saskatchewan.....	585,782	1,154,544	1,482,223	1,286,361	1,148,886	1,170,930
Alberta.....	492,182	795,000	929,887	1,450,502	1,339,083	856,609
British Columbia.....	38,059,559	32,478,632	34,900,990	44,531,858	43,817,147	58,596,333
Yukon.....	3,056	2,495	3,131	115,269 <sup>1</sup>	563,278 <sup>1</sup>	538,422 <sup>1</sup>
<b>Grand Totals.....</b>	<b>75,116,933</b>	<b>85,594,544</b>	<b>89,439,508</b>	<b>113,871,100</b>	<b>121,124,733</b>	<b>123,900,303</b>
<b>Totals, Sea Fish.....</b>	<b>65,977,321</b>	<b>73,180,919</b>	<b>78,114,463</b>	<b>98,995,493</b>	<b>106,515,598</b>	<b>110,274,281</b>
<b>Totals, Inland Fish.....</b>	<b>9,139,612</b>	<b>12,413,625</b>	<b>11,325,045</b>	<b>14,875,607</b>	<b>14,609,135</b>	<b>13,626,022</b>

<sup>1</sup> Includes the Northwest Territories.



**3.—Quantities of Sea and Inland Fish Landed, by Provinces, 1942-47**

NOTE.—Figures for the years 1918-41 are given at p. 431 of the 1947 Year Book.

Province or Territory	1942	1943	1944	1945	1946	1947
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Prince Edward Island.....	292,454	332,405	272,227	310,535	351,171	316,815
Nova Scotia.....	2,551,281	2,995,413	3,345,588	3,955,288	4,176,630	3,241,359
New Brunswick.....	1,623,387	1,815,208	1,751,725	1,556,964	2,220,764	2,167,402
Quebec.....	1,115,848	1,148,645	1,028,860	1,235,779	1,271,629	963,540
Ontario.....	263,780	305,932	310,392	342,748	329,971	249,194
Manitoba.....	359,353	358,646	293,231	310,960	286,958	299,386
Saskatchewan.....	81,802	104,866	129,588	100,215	77,970	80,205
Alberta.....	61,850	66,431	76,338	85,824	110,696	98,986
British Columbia.....	5,712,050	5,230,536	4,583,226	5,440,291	4,293,881	4,756,299
Yukon.....	283	159	281	33,205 <sup>1</sup>	66,665 <sup>1</sup>	35,162 <sup>1</sup>
<b>Grand Totals.....</b>	<b>12,062,088</b>	<b>12,358,241</b>	<b>11,791,456</b>	<b>13,371,809</b>	<b>13,186,335</b>	<b>12,208,348</b>
<b>Totals, Sea Fish.....</b>	<b>11,233,710</b>	<b>11,447,490</b>	<b>10,928,311</b>	<b>12,462,890</b>	<b>12,273,589</b>	<b>11,412,563</b>
<b>Totals, Inland Fish.....</b>	<b>828,378</b>	<b>910,751</b>	<b>863,145</b>	<b>908,919</b>	<b>912,746</b>	<b>795,785</b>

<sup>1</sup> Includes the Northwest Territories.

Table 4 shows the quantities landed (primary products only) and values marketed (primary and secondary products) of the main items of the commercial fisheries. Minor items, and secondary products not specifically derived from one particular kind of fish, are grouped in the item "Other"; more detailed figures and tables are published in "Fisheries Statistics of Canada", issued by the Dominion Bureau of Statistics.

**4.—Quantities Caught and Values of All Products Marketed of the Chief Commercial Fisheries, 1943-47**

NOTE.—The catch as shown in this table is in each case exclusive of the quantity of livers landed, but the value includes the value of liver products.

Item	1943	1944	1945 <sup>1</sup>	1946 <sup>1</sup>	1947 <sup>1</sup>	Increase (+) or Decrease (—) 1947 Compared with 1946
Salmon..... cwt.	1,242,391	1,099,161	1,727,855	1,515,482	1,648,675	+133,193
\$	15,642,190	16,385,365	25,994,395	25,230,333	36,278,350	+11,048,017
Herring..... cwt.	3,226,632	3,219,158	3,949,864	3,735,731	3,984,606	+248,875
\$	11,937,287	11,040,489	13,890,284	17,344,354	17,950,629	+606,275
Cod..... cwt.	2,155,179	2,360,450	2,929,332	3,266,570	2,327,108	—939,462
\$	13,064,805	14,787,461	19,662,480	21,742,405	14,466,780	—7,275,625
Lobsters..... cwt.	301,092	333,502	371,801	383,085	318,840	—64,245
\$	8,228,533	9,048,220	13,260,185	14,504,489	10,751,201	—3,753,288
Sardines..... bbl.	396,381	413,152	338,925	502,203 <sup>2</sup>	508,201	+5,998
\$	3,003,796	3,425,899	2,914,111	4,210,104	6,616,764	+2,406,660
Halibut..... cwt.	139,043	146,250	162,576	194,599	260,368	+65,769
\$	3,065,375	3,299,972	3,646,936	4,402,089	6,531,891	+2,129,802
Whitefish..... cwt.	167,806	177,000	188,713	192,002	160,227	—31,775
\$	3,575,923	3,518,279	4,094,709	4,044,957	3,561,814	—433,156
Pickeral (Doré)..... cwt.	135,034	149,841	148,009	137,543	144,627	+7,084
\$	2,142,376	2,233,768	2,740,497	3,149,465	3,518,814	+369,349
Haddock..... cwt.	307,544	259,650	322,208	347,376	315,576	—31,800
\$	2,544,409	2,255,325	2,297,485	2,468,055	2,479,197	+11,142
Mackerel..... cwt.	370,857	342,869	402,069	295,175	262,629	—32,546
\$	2,274,137	2,206,689	2,810,020	2,147,151	1,719,303	—427,848
Grayfish..... cwt.	79,024	24,439	56 <sup>2</sup>	50 <sup>2</sup>	40 <sup>2</sup>	—10
\$	2,106,565	3,751,567	2,347,693	1,110,877	1,484,819	+373,942

For footnotes, see end of table, p. 499



#### 4.—Quantities Caught and Values of All Products Marketed of the Chief Commercial Fisheries, 1943-47—concluded

Item	1943	1944	1945 <sup>1</sup>	1946 <sup>1</sup>	1947 <sup>1</sup>	Increase (+) or Decrease (—) 1947 Compared with 1946
Hake..... cwt.	213,451	197,001	238,161	258,834	224,265	-34,569
\$	1,102,601	917,844	1,598,081	1,601,752	1,268,440	-333,312
Smelts..... cwt.	60,024	69,115	65,154	54,519	55,453	+934
\$	883,346	1,011,983	965,113	986,520	1,238,797	+252,277
Lake trout..... cwt.	46,988	49,877	56,382	73,830	48,896	-24,934
\$	1,253,059	1,145,527	1,404,540	1,691,286	1,230,740	-460,546
Clams..... cwt.	135,785	150,769	144,800	203,273	241,629	+38,356
\$	561,439	664,403	633,628	1,060,795	1,211,291	+150,496
Saugers..... cwt.	85,321	66,233	59,849	49,481	42,861	-6,620
\$	1,056,374	791,006	727,067	895,195	879,840	-16,355
Swordfish..... cwt.	30,209	19,890	27,171	27,757	17,916	-9,841
\$	1,017,184	678,870	1,165,225	1,229,769	844,837	-384,932
Pollock..... cwt.	149,630	202,154	266,384	282,795	208,599	-74,196
\$	700,663	803,401	1,155,011	1,262,936	835,291	-427,645
Tullibee..... cwt.	88,534	65,593	79,519	104,789	126,525	+21,736
\$	490,516	436,760	645,355	446,827	785,066	+338,239
Oysters..... bbl.	43,618	55,815	37,208	66,652	64,559	-2,093
\$	376,030	523,936	500,536	707,649	715,253	+7,604
Perch..... cwt.	26,981	30,029	30,102	44,993	38,754	-6,239
\$	400,457	351,082	532,267	733,124	688,254	-44,870
Pike..... cwt.	56,021	57,302	57,520	47,492	60,080	+12,588
\$	450,946	431,820	516,236	495,015	611,222	+116,207
Ling cod..... cwt.	58,691	84,250	79,143	73,825	38,749	-35,076
\$	874,691	1,282,617	1,166,738	1,064,627	596,886	-467,741
Tuna..... cwt.	4,693	9,924	19,231	22,523	25,038	+2,515
\$	37,849	165,079	378,998	482,580	688,024	+106,444
Scallops..... gal.	57,399	60,283	96,251	87,897	93,173	+5,276
\$	292,517	323,071	544,918	541,117	576,183	+35,066
Anchovies..... cwt.	1,407	12,200	15,000	25,400	28,580	+3,180
\$	11,433	261,160	82,545	615,106	537,787	-77,319
Soles..... cwt.	7,610	31,826	51,718	95,630	61,053	-34,577
\$	49,390	271,231	438,219	848,004	515,148	-332,856
Alewives..... cwt.	105,956	94,223	138,891	172,007	117,751	-54,256
\$	315,158	294,743	410,261	654,227	457,084	-197,143
Blue pickerel..... cwt.	96,609	94,133	65,825	19,723	17,527	-2,196
\$	1,391,170	954,609	1,474,056	397,995	389,566	-8,429
Irish moss, black.... cwt.	—	22,752	54,222	140,774	217,526	+76,752
\$	—	55,296	113,869	273,607	388,606	+109,999
Other..... \$	6,764,403	6,072,136	5,969,652	4,777,423	4,182,539	-594,884
<b>Totals..... \$</b>	<b>85,594,544</b>	<b>89,439,508</b>	<b>113,871,100</b>	<b>121,124,733</b>	<b>123,900,303</b>	<b>+2,775,570</b>

<sup>1</sup> Includes the Northwest Territories.<sup>2</sup> Livers only were landed on the Pacific Coast.

On the basis of marketed value, salmon established itself as the leading fish as long ago as 1895; second place has been held since 1941 by cod, but in 1947, with a decline from 1946 of 28 p.c. in the quantity caught, this fish ranked third in value, and herring, with a small increase over 1946, gained second position. Lobster, which for some years prior to 1940 was second in marketed value, fell to fourth place in that year, the position it retained in 1947.

The equipment used in the commercial fisheries for the primary operations of catching, landing, handling, and storing fish, was valued in 1947 at \$58,591,000—an increase of \$11,177,779 over the 1946 figure; of this increase, \$8,489,815 was attributable to a rise in the total estimated value of craft of all types. Sea fisheries accounted for \$49,585,446, or 85 p.c. of the total investment, and employed 47,249 men—4,712 fewer than in 1946. In 1947, 18,170 men were engaged in the inland fisheries, a reduction of 3,383 from the previous year's number.

## 5.—Capital Investment in Sea and Inland Fisheries, 1946 and 1947

Kind of Equipment	1946		1947	
	No.	\$	No.	\$
<b>Sea Fisheries—</b>				
Steam trawlers.....	6	710,000	7	1,175,000
Druggers.....	99	1,419,050	108	2,037,450
Vessels—gasoline, diesel and sail.....	1,726	9,978,875	1,919	14,257,369
Boats—gasoline, diesel, sail and row.....	31,153	12,956,303	28,232	15,953,318
Packers, carrying boats and scows.....	464	1,167,750	363	1,008,840
Herring nets.....	43,075	622,966	45,956	870,572
Mackerel nets.....	30,002	511,061	32,156	638,967
Salmon nets, traps and seines.....	17,296	3,426,756	14,769	3,178,311
Smelt nets.....	14,866	390,753	14,320	460,155
Other nets, weirs and seines.....	4,737	1,919,177	5,555	2,090,525
Tubs of trawl, skates of gear, hand lines.....	107,466	1,098,056	90,813	1,393,881
Lobster traps and pounds.....	1,853,537	3,674,351	1,833,811	4,261,632
Other gear.....	...	150,941	...	220,007
Premises—piers, wharves, freezers, ice-, small fish- and smoke-houses.....	7,605	1,447,339	7,335	2,039,419
<b>Total Values, Sea Fisheries Equipment.....</b>	...	<b>39,473,378</b>	...	<b>49,585,446</b>
<b>Inland Fisheries—</b>				
Fish carriers and tugs.....	132	1,120,975	145	1,321,985
Boats (gasoline and diesel), skiffs and canoes.....	7,050	1,848,123	7,060	1,936,929
Gill nets.....	...	3,078,575	...	3,659,899
Other nets, weirs and seines.....	5,378	760,268	6,338	840,326
Other gear.....	...	42,722	...	81,050
Premises—piers, wharves, freezers, ice-, small fish- and smoke-houses.....	2,090	1,089,180	2,229	1,165,395
<b>Total Values, Inland Fisheries Equipment.....</b>	...	<b>7,939,843</b>	...	<b>9,005,554</b>
<b>Grand Totals.....</b>	...	<b>47,413,221</b>	...	<b>58,591,000</b>

## 6.—Persons Employed in the Primary Fishing Industry, 1945-47

Item	Sea Fisheries			Inland Fisheries		
	1945	1946	1947	1945	1946	1947
	No.	No.	No.	No.	No.	No.
<b>Persons Employed in—</b>						
Steam trawlers.....	155	162	164	—	—	—
Druggers.....	188	439	509	—	—	—
Vessels.....	7,466	7,809	8,751	1	1	1
Boats.....	36,760	38,097	34,459	10,060	10,402 <sup>1</sup>	11,511
Packers, carrying boats and scows.....	768	693	346	91	117 <sup>1</sup>	132
Fishing, not in boats.....	2,663	4,761	3,020	9,562	11,034	6,527
<b>Totals, Fishermen.....</b>	<b>47,998</b>	<b>51,961</b>	<b>47,219</b>	<b>19,713</b>	<b>21,553</b>	<b>18,170</b>

<sup>1</sup> Included with "boats".

## Subsection 2.—The Fish-Processing Industry

The canneries operating in Canada in 1947 included 125 establishments reported as dealing wholly or mainly with lobster; this, although 10 fewer than in 1946, still represented more than one-half the total. Of the total value of products of the fish-processing industry, amounting to \$112,238,159 in 1947, salmon canneries accounted for 37 p.c., other canneries for 26 p.c., and fish-curing establishments for 22 p.c.

## 7.—Summary Statistics of Fish-Processing Establishments, 1943-47

Item	1943	1944	1945	1946	1947
<b>Establishments—</b>					
Canneries..... No.	230	249	237	251	249
Fish-curing..... "	203	208	205	237	250
Fresh-fish, freezing and reduction plants..... "	90	78	98	98	95
<b>Totals, Establishments..... No.</b>	<b>523</b>	<b>535</b>	<b>540</b>	<b>556</b>	<b>594</b>
<b>Employees—</b>					
Canneries—					
Male..... No.	5,085	5,534	5,400	5,893	5,931
Female..... "	5,829	6,253	6,254	6,437	6,699
Fish-curing Establishments—					
Male..... "	2,636	2,882	3,035	3,835	3,449
Female..... "	827	847	873	881	653
Fresh-fish, Freezing, and Reduction Plants—					
Male..... "	1,244	1,412	1,525	1,726	1,413
Female..... "	278	344	414	624	486
<b>Totals, Male Employees..... No.</b>	<b>8,965</b>	<b>9,828</b>	<b>9,960</b>	<b>11,454</b>	<b>10,793</b>
<b>Totals, Female Employees..... No.</b>	<b>6,934</b>	<b>7,444</b>	<b>7,541</b>	<b>7,942</b>	<b>7,838</b>
<b>Salaries and Wages—</b>					
Salaries..... No.	1,069	1,218	1,210	1,398	1,571
Wages..... No.	11,842	13,461	13,545	14,954	14,887
Contract and piece-work..... No.	2,988	2,593	2,746	3,044	2,173
	\$ 903,058	\$ 743,054	\$ 699,091	\$ 945,235	\$ 752,015
<b>Totals, Salaries and Wages.... \$</b>	<b>10,039,712</b>	<b>11,070,749</b>	<b>11,967,110</b>	<b>14,745,044</b>	<b>16,612,697</b>
<b>Fuel and Electricity Used—</b>					
Coal..... \$	354,281	384,760	405,244	456,423	463,406
Gasoline and oil..... \$	274,472	254,292	277,324	327,474	604,947
Electricity..... \$	152,221	183,516	202,964	235,006	255,603
Wood and other fuel..... \$	69,171	86,968	88,309	84,785	87,389
<b>Totals, Fuel and Electricity... \$</b>	<b>850,145</b>	<b>909,536</b>	<b>973,841</b>	<b>1,103,688</b>	<b>1,411,345</b>
<b>Materials Used—</b>					
Fish..... \$	33,016,090	34,278,057	52,273,281	55,899,945	50,379,163
Edible oils..... \$	261,972	333,618	289,883	463,335	756,034
Salt..... \$	528,320	536,865	528,680	732,403	741,110
Containers..... \$	6,588,422	6,879,997	7,957,147	9,401,080	9,204,891
Other..... \$	2,971,981	3,878,005	1,015,340	1,516,065	1,699,135
<b>Totals, Materials Used..... \$</b>	<b>43,366,785</b>	<b>45,906,542</b>	<b>62,064,331</b>	<b>68,012,828</b>	<b>62,789,333</b>

## 8.—Fish-Processing Establishments, by Provinces, 1946 and 1947

Year and Kind of Establishment	P.E.I.	N.S.	N.B.	Que.	B.C.	Canada
<b>1946</b>	No.	No.	No.	No.	No.	No.
Canneries.....	61	52	82	19	37	251
Fish-curing establishments.....	2	105	53	68	9	237
Fresh-fish, freezing and reduction plants.....	5	35	13	18	27	98
<b>Totals, 1946.....</b>	<b>68</b>	<b>192</b>	<b>148</b>	<b>105</b>	<b>73</b>	<b>586</b>
<b>1947</b>						
Canneries.....	63	47	80	20	39	249
Fish-curing establishments.....	2	110	59	72	7	250
Fresh-fish, freezing and reduction plants.....	3	34	14	20	24	95
<b>Totals, 1947.....</b>	<b>68</b>	<b>191</b>	<b>153</b>	<b>112</b>	<b>70</b>	<b>594</b>

## Section 4.—Statistics of Newfoundland Fisheries Prior to Union

Statistics of the Newfoundland fisheries, as hitherto compiled, are not strictly comparable with those of Canada and for that reason as well as the fact that they cover a period prior to Union, they are shown separately in this Section. The information given below is prepared from reports of the Newfoundland Fisheries Board and from customs and census returns.

Trade statistics are covered in this Section because they are closely related to production and because the trade of Newfoundland is not discussed in the Foreign Trade Chapter. The export values are in fact the most nearly accurate indication that can be given of the relative importance of the various species in the Newfoundland fisheries, and of the developments that have taken place in production and marketing in recent years—particularly in the direction of greater diversification of species handled and products marketed.

### 9.—Production and Exports of Salted Codfish of Newfoundland, 1938-48

NOTE.—Production is shown by calendar years, but value of exports is available only on a fiscal-year basis before 1946. The exports during any fiscal year represent almost entirely fish produced in the calendar year ending within that fiscal year.

PRODUCTION		EXPORTS		
Calendar Years	Quantity	Fiscal Years <sup>1</sup>	Value	Salted Codfish as Percentage of All Fishery Exports
	cwt.		\$'000	p. c.
1938.....	1,294,758	1938-39.....	5,318	71.5
1939.....	1,170,664	1939-40.....	5,072	62.6
1940.....	980,553	1940-41.....	6,292	64.6
1941.....	930,449	1941-42.....	8,845	69.9
1942.....	787,871	1942-43 <sup>2</sup> .....	9,257	76.8
1943.....	1,052,800	1943-44.....	12,218	66.1
1944.....	1,107,420	1944-45.....	12,447	56.9
1945.....	1,069,843	1945-46.....	16,375	55.1
1946.....	1,106,043	1946-47.....	15,659	50.5
1947.....	1,306,960	1947-48.....	16,405	56.6
1948.....	1,052,800	1948-49.....	17,723	55.2

<sup>1</sup> Fiscal years ended June 30, 1939-41, years thereafter ended Mar. 31.

<sup>2</sup> Nine months ended

Of the total weight of salted codfish exported from Newfoundland in 1948, 45 p.c. went to Europe (47 p.c. in 1938), and 53 p.c. to Western Hemisphere countries (52 p.c. in 1938). In Europe, Italy was the largest buyer in 1948, taking 21 p.c. (17 p.c. in 1938), while Puerto Rico led the Western Hemisphere consumers with 23 p.c. in 1948 (17 p.c. in 1938).



While the value of salted codfish exports increased substantially from 1938 to 1948, the ratio of this value to the total value of all fisheries declined considerably after 1942. This trend is related to the increasingly important contribution to export values made by other products, notably fresh and frozen cod fillets, herring and lobster. Export values of the principal fishery products, other than salted codfish, are shown in Table 11.

#### 10.—Percentage Distribution of Newfoundland Exports of Salted Codfish, by Countries, 1938, 1945, 1947 and 1948

NOTE.—This table is calculated on quantities shipped; exports of wet-salted codfish have been converted to dried weight on the basis of 140 lb. of wet-salted to one quintal of dried.

Country	1938	1945	1947	1948
	p. c.	p. c.	p. c.	p. c.
<b>Europe—</b>				
Spain.....	0.9	22.8	8.2	—
Portugal.....	17.6	13.0	16.9	14.9
Italy.....	17.2	10.3	12.4	20.7
Greece.....	9.7	7.2	0.7	9.5
United Kingdom.....	1.6	2.8	0.1	—
<b>Totals, Europe.....</b>	<b>47.0</b>	<b>56.1</b>	<b>38.3</b>	<b>45.1</b>
<b>America—</b>				
Brazil.....	14.2	3.9	7.8	9.4
United States.....	1.4	3.2	2.7	2.1
Canada.....	0.9	0.6	3.7	4.0
Jamaica.....	10.8	9.6	13.2	7.6
Barbados.....	3.4	1.8	2.9	2.3
Trinidad.....	1.3	1.6	1.5	1.5
Puerto Rico.....	17.4	16.1	18.7	22.6
Other West Indies.....	2.3	5.2	8.6	3.6
<b>Totals, America.....</b>	<b>51.7</b>	<b>42.0</b>	<b>58.2</b>	<b>53.1</b>
Other countries.....	1.3	1.9	3.5	1.8
<b>Grand Totals.....</b>	<b>100.0</b>	<b>100.0</b>	<b>109.0</b>	<b>100.0</b>

#### 11.—Exports of Fishery Products (other than Salted Codfish) of Newfoundland, 1938-48

Kind of Fish	Calendar Years										
	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>Cod—</b>											
Fresh and frozen fillets.....	49	54	467	528	1,016	1,623	4,138	5,760	5,040	1,458	2,509
Other (excluding salted).....	9	22	101	35	56	54	108	294	392	381	333
<b>Herring.....</b>	<b>187</b>	<b>279</b>	<b>376</b>	<b>333</b>	<b>439</b>	<b>1,006</b>	<b>1,595</b>	<b>3,834</b>	<b>4,895</b>	<b>2,401</b>	<b>2,836</b>
<b>Haddock.....</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>22</b>	<b>3</b>	<b>7</b>	<b>33</b>	<b>66</b>	<b>301</b>	<b>525</b>	<b>1,192</b>
<b>Lobster.....</b>	<b>273</b>	<b>329</b>	<b>234</b>	<b>237</b>	<b>218</b>	<b>263</b>	<b>380</b>	<b>625</b>	<b>957</b>	<b>851</b>	<b>959</b>
<b>Salmon.....</b>	<b>608</b>	<b>423</b>	<b>516</b>	<b>281</b>	<b>282</b>	<b>362</b>	<b>628</b>	<b>516</b>	<b>891</b>	<b>676</b>	<b>772</b>
<b>Bream (rosefish).....</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>8</b>	<b>13</b>	<b>27</b>	<b>216</b>	<b>532</b>
<b>Seal.....</b>	<b>246</b>	<b>106</b>	<b>431</b>	<b>326</b>	<b>98</b>	<b>57</b>	<b>142</b>	<b>233</b>	<b>470</b>	<b>493</b>	<b>480</b>
<b>Squid.....</b>	<b>92</b>	<b>106</b>	<b>62</b>	<b>7</b>	<b>—</b>	<b>—</b>	<b>1</b>	<b>36</b>	<b>137</b>	<b>244</b>	<b>259</b>
<b>Whale.....</b>	<b>29</b>	<b>1</b>	<b>1</b>	<b>10</b>	<b>19</b>	<b>20</b>	<b>4</b>	<b>67</b>	<b>141</b>	<b>176</b>	<b>224</b>
<b>Mackerel.....</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>11</b>	<b>78</b>	<b>267</b>	<b>198</b>
<b>Oil and meal<sup>1</sup>.....</b>	<b>589</b>	<b>607</b>	<b>1,287</b>	<b>1,345</b>	<b>1,369</b>	<b>1,776</b>	<b>1,802</b>	<b>1,790</b>	<b>2,630</b>	<b>4,575</b>	<b>3,775</b>
<b>Other.....</b>	<b>138</b>	<b>87</b>	<b>118</b>	<b>104</b>	<b>104</b>	<b>100</b>	<b>157</b>	<b>131</b>	<b>211</b>	<b>232</b>	<b>416</b>
<b>Totals.....</b>	<b>2,220</b>	<b>2,013</b>	<b>3,592</b>	<b>3,228</b>	<b>3,606</b>	<b>5,273</b>	<b>9,000</b>	<b>13,376</b>	<b>16,170</b>	<b>12,495</b>	<b>14,485</b>

<sup>1</sup> Less than \$500.

<sup>2</sup> Includes bream, cod, dogfish, halibut, herring, seal and whale oils, and bream, cod, caplin and herring meals.

Throughout its history, a very large proportion of the fishing population of Newfoundland has been concerned primarily with the salt cod-fishery; the numbers of persons engaged in the industry since 1938 are shown in Table 12.

**12.—Number of Fishermen Engaged in the Salt Cod-fishery of Newfoundland, 1938-48**

Calendar Years	Inshore Fishery	Labrador Fishery	Deep-sea Fishery	Total
	No.	No.	No.	No.
1938.....	19,164	4,128	2,130	25,422
1939.....	18,622	4,545	2,053	25,220
1940.....	17,005	4,082	1,705	22,792
1941.....	13,724	3,239	1,680	18,643
1942.....	13,955	2,868	822	17,645
1943.....	15,554	3,491	974	20,019
1944.....	17,220	4,016	1,151	22,387
1945.....	19,650	4,147	1,039	24,836
1946.....	20,638	4,220	1,304	26,162
1947.....	22,456	4,075	1,550	28,081
1948.....	23,145	3,590	1,255	28,000

The number of persons whose occupation was described as "fisherman" in the Newfoundland Census, 1945, was 30,953. In 1935 the comparable figure was 35,018. Total persons engaged in the industry, including canning, curing and other occupations, as well as fishing, were 31,634 in 1945, and 36,947 in 1935.

Comparatively little information is available as to quantity and value of equipment employed in the Newfoundland fisheries; Table 13 gives, in broad general groupings, a summary of the figures obtained from the Censuses of 1935 and 1945. The total value of vessels, boats, rooms and gear shown in the table was \$6,680,531 in 1935 and \$12,335,461 in 1945.

**13.—Fishing Vessels, Boats, Rooms and Gear Used in the Fisheries of Newfoundland, 1935 and 1945**

Vessels, Boats and Rooms	Census Years		Gear	Census Years	
	1935	1945		1935	1945
Trawlers.....No.	..	13	Cod traps and nets.....No.	14,748	13,499
tons	..	430	Salmon traps and nets... "	12,099	14,548
Other vessels <sup>1</sup> .....No.	1,307	897	Herring nets and seines... "	13,778	19,142
tons	48,151	32,327	Caplin seines..... "	1,339	1,150
Dories and motor boats...No.	29,043	26,746	Lobster traps..... "	..	150,379
Fishing rooms..... "	13,202	10,848			

<sup>1</sup> Schooners, bankers, Labrador floaters and western boats.

# CHAPTER XV.—MINES AND MINERALS\*

## CONSPECTUS

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*Note.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.*

A short historical outline of the development of the mineral industry in Canada is given at pp. 309-310 of the 1939 Year Book and a special article on the Development of Canada's Mineral Resources in Relation to the War Effort, so far as that development had taken place by the middle of 1940, appears at pp. 289-309 of the 1940 edition. An article on the Outlook for the Mineral Industry in Relation to the Economic Development of Canada is given at pp. 302-314 of the 1946 edition.

## THE IRON-ORE RESOURCES OF THE QUEBEC-LABRADOR REGION†

### Abstract

The iron-ore position in Canada changed radically during the last decade. There are now three well-established iron mines, two in Ontario and one in Newfoundland. A vast new ore field is under development in Labrador, the main features of which, as it stands at present, are as follows:—

- (1) A major iron-ore field has been demonstrated in the central part of the Labrador peninsula, with an initial reserve of 300,000,000 tons of high-grade ore. The general geological features indicate that a much greater tonnage will be found as surface prospecting and drilling proceed.
- (2) Operating conditions are favourable for about six months of the year. The slight overburden, good drainage and favourable hydro-electric supply will keep operating costs at a minimum.
- (3) Present agreements with the governments specify royalties and taxes that are moderate.
- (4) Railway transportation to the coast at Seven Islands has been estimated by the Labrador Mining and Exploration Company at one-half cent per ton-mile (\$1.75 per ton). Port conditions are favourable.
- (5) There will be a comparatively small market on the Atlantic coast, and a possible small market in Great Britain and Belgium. The main market is considered to be in the area centering round Pittsburgh where most of the initial 10,000,000 tons a year will have to be sold. It may be possible to ship profitably by rail to this area from the ports of Montreal and Baltimore. Construction of the St. Lawrence Deep Waterway will probably ensure a profitable market in the area now served by the Lake Superior ores.
- (6) The Labrador field is capable of augmenting the supply of Lake ores and thus prolonging the life of the natural ore mines of the Lake Superior district. It is also capable of providing a rapidly expanded supply of ore to meet an emergency—a function the Lake Superior pits have twice performed, but may not be capable of fulfilling a third time.

\* Except where otherwise noted, this Chapter has been revised in the Mining, Metallurgical and Chemical Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

† Prepared by W. M. Goodwin, Bureau of Mines, Ottawa, and published with the permission of the Director, Mines, Forests and Scientific Services Branch, Department of Mines and Resources, Ottawa.

### Background

After a long period during which Canada produced little or no iron ore, there is now in prospect an abundant supply for domestic use and a substantial surplus for export. Two iron mines in Ontario are each shipping about 1,000,000 tons annually, with prospects of greater output in the future. In the Labrador peninsula a new iron-ore field, one of the largest in the world, has been discovered and is expected to be in production within a few years. Meantime there has been added to Canadian supplies the long-established Wabana iron mines in Newfoundland.

In 1948 the Canadian iron mines together with those of Newfoundland produced 3,000,000 long tons of ore, and the furnaces used 4,000,000 tons. Most of the ore used in the furnaces was imported in order to provide the most advantageous mixture of ores, the larger part of the Canadian ore being exported. When the Labrador ore becomes available, it should be possible to provide more completely from Canadian mines the mixture of ores required by the furnaces.

### Review of Producing Canadian Iron-Ore Mines

**Steep Rock Mine.**—The Steep Rock Mine, 150 miles west of Port Arthur, Ont., was discovered ten years ago by drilling beneath the waters of Steep Rock Lake. To exploit the ore the Seine River was diverted into a new channel, the lake was pumped out and a large amount of silt overlying the ore was removed. Two deposits of hematite, "A" and "B", have been definitely proven and others are suspected on the evidence of drilling. "B" deposit has been mined by open pit since 1945, and yields about 1,000,000 tons of high-grade ore a year, much in demand in the United States because it is so easily smelted. The deposit is vertical and the ore is likely to be mined to a great depth, first from the open pit and then from an underground mine.

"A" deposit is about double the size of "B". Preparations are now being made to remove the large amount of silt in the lake bottom on top of the ore. The open pit on "A" deposit is expected to yield 2,000,000 tons of high-grade ore a year, commencing in 1951.

**Helen Mine.**—The Helen Mine, northeast of Lake Superior and 110 miles north of Sault Ste. Marie, is owned by the Algoma Steel Corporation. The ore is siderite, the carbonate of iron, which is treated by burning with coke in a sintering machine to give a porous, high-grade material much in favour with blast-furnace operators. For the latest ten years the ore has been obtained from open cuts, but an underground mine has now been developed from which an increased supply will be drawn. The annual output of sinter to the end of 1948 has been about 500,000 tons. The sinter plant is being increased to a capacity of 1,000,000 tons a year, and the mine in proportion.

There are additional deposits of siderite in this area, some owned by the Algoma Steel Corporation and others leased to a United States firm, which are capable of augmenting the output of sinter well beyond the 1,000,000 tons a year now in prospect.

**Wabana Mine.**—The steel plant at Sydney, N.S., was established 45 years ago to make use of the abundant, cheaply mined ore of the Wabana mine on Bell Island in Conception Bay, not far from St. John's, Newfoundland. The ore is hematite, in beds that outcrop on the Island and extend far out under the bay. The seam is so wide that electrically operated shovels can be used to load the broken ore into mine cars from which it goes directly into steamships.



The Wabana ore has a high phosphorus content and is not acceptable to most furnace operators on this Continent. At Sydney special means are employed to cope with the phosphorus. Wabana ore is shipped in substantial quantities to the United Kingdom and Germany, where a steel-making process is in use that removes the phosphorus and employs it as phosphate fertilizer.

The shipments in long tons from these three sources were 686,000 from Steep Rock, 535,000 from the Helen Mine and 1,704,000 from Wabana. While these three producing iron-ore mines do not yet meet fully the tonnage required by the Canadian furnaces, the present expansion of the two mines in Ontario promises to do so shortly. The chemical characteristics of the three ores are as follows:—

<i>Item</i>	<i>Steep Rock</i>	<i>Helen Sinter</i>	<i>Wabana</i>
	p.c.	p.c.	p.c.
Iron (natural).....	51.5	50.28 <sup>1</sup>	52.5
Phosphorus.....	0.023	0.017	0.8
Sulphur.....	0.041	0.089	--
Manganese.....	0.19	2.95	--
Silica.....	7.53	11.5	12.0
Moisture.....	10.17	1.75	--

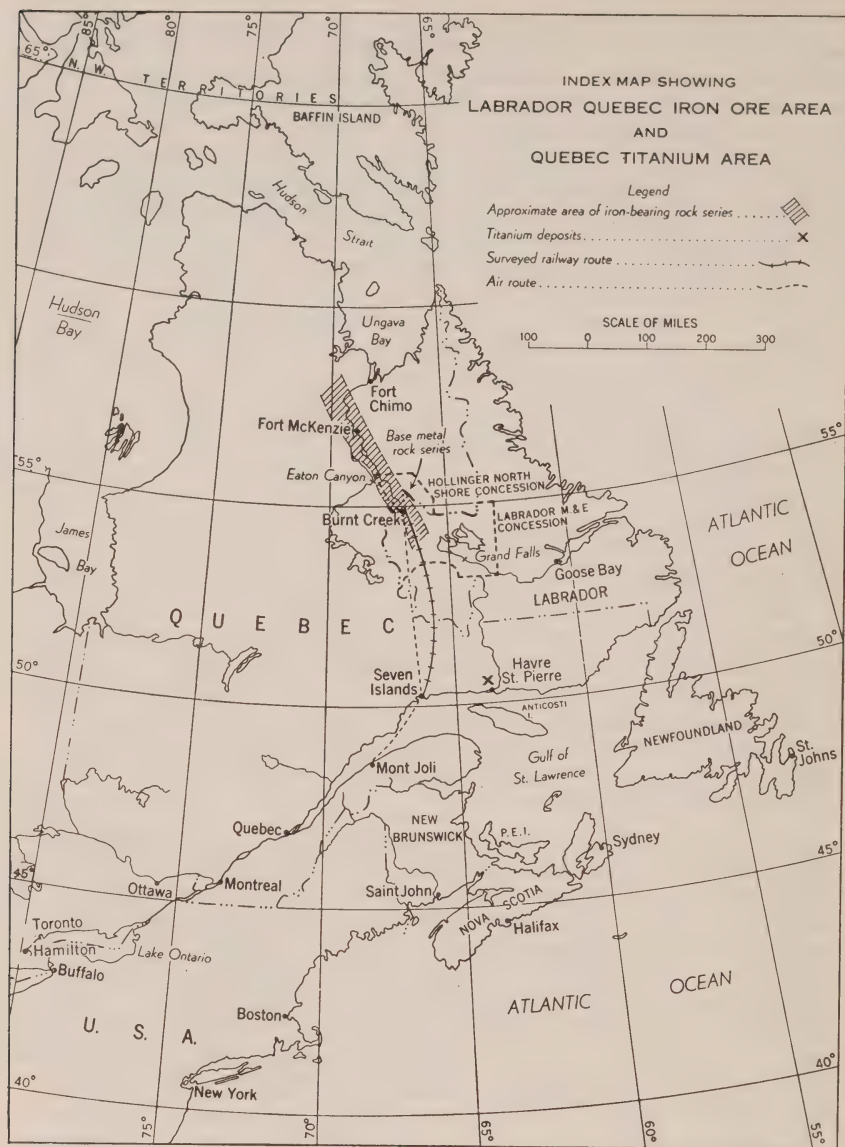
<sup>1</sup> 53 p.c. iron plus manganese.

### The Labrador Field

For more than fifty years it has been known that a belt of iron-bearing rocks traverses the interior of the Labrador peninsula in a northwest-southeast direction. A substantial part of the iron-bearing rock series consists of a rock formation similar to that of the Mesabi Range in Minnesota. This offered an attraction to prospectors but, until transportation by aircraft was available, it was virtually impossible in this remote region to conduct the detailed prospecting necessary to locate the actual deposits of ore. The first body of iron ore was found in 1929. Since then 25 commercial orebodies have been discovered and drilled.

This iron-ore region is in the central part of the Labrador peninsula (see map p. 508) astride the Labrador-Quebec boundary, and has been developed to the point where its exploitation seems feasible. The deposits are large and of good grade, and the conditions favour low-cost open-pit mining during about six months of the year. A railway location with good grades has been made and a port on the Gulf of St. Lawrence has been chosen. Consideration is being given to equipping the property for an initial output of 10,000,000 tons a year. Tests have shown that the ore is easily reducible and it has other desirable characteristics that make it comparable to the ore of the well-known Mesabi Range in Minnesota. The proven extent of the field puts it among the great iron-ore fields of the world, and its full extent is not yet known.

**Mining Concessions.**—All the orebodies discovered so far are on two mining concessions held by subsidiaries of Hollinger Consolidated Gold Mines, Limited. The M. A. Hanna Company of Cleveland has a minority interest in both subsidiaries. The concession of Labrador Mining and Exploration Company, Limited, contains 20,000 square miles. On the Quebec side of the border, the Hollinger North Shore Exploration Company, Limited, holds 3,900 square miles. The two concessions cover the iron formation for a length of 225 miles. From each of the concessions a limited area must be selected for retention within a few years.



**Occurrence of the Ore Deposits.**—The ore deposits so far drilled all lie within a length of 90 miles and a width of three miles, and have been found mainly as surface outcrops. Most of the surface is covered by a foot or two of glacial debris, so it seems likely that an intensive search will disclose additional deposits. A line of outcrops ten miles east of the drilled deposits may indicate a second, parallel range of orebodies.

The larger part of the ore drilled to the end of 1948 lies in the central part of the 90 miles on both sides of the New Quebec-Labrador boundary which in this locality is the height-of-land. The names of the principal deposits in this central part are Fleming, Ferriman, Burnt Creek, Ruth Lake and Wishart. The main camp is at Burnt Creek. The Goodwood orebody, estimated to contain 45,000,000 tons, the largest proven to date, is 25 miles northwest of Burnt Creek. The most northerly deposit, the Eclipse, containing 29,000,000 tons, is 50 miles northwest of Burnt Creek. Forty miles southeast of the camp is the Sawyer Lake deposit, one of the first to be discovered and not yet completely drilled as it lies at some distance from the projected railway line.

The occurrence of the bodies of ore within the iron formation is similar to that on the Mesabi Range in Minnesota. Recurrent parallel thrust faults bring up repeatedly the easterly dipping iron formation and have helped to create in many places the conditions favourable to the deposition of ore.

**Nature of the Ore.**—The ore deposits so far discovered are largely in ridges above the general level of the ground, with little overburden. Where the ore extends beneath the valleys or under flat ground the overburden is generally comparatively light and in no case is there evidence that water will be a serious problem. Adits have been driven into two of the deposits to give a depth of 100 feet beneath the surface. These have shown that the ore below ground has essentially the same physical characteristics as the ore at or near the surface. Thus, the numerous testpits give a reliable indication of the physical nature of the ore, and samples from drilling have determined accurately the chemical composition.

The ore varies in colour from reddish through brown to yellowish. While it is mainly in large and small lumps, with a small proportion of fines, it has not been shown as yet that it will yield any appreciable proportion of open-hearth lump ore. An exception to this is the Sawyer Lake deposit, which is hard, massive hematite of very high grade where tested, all of open-hearth lump grade.

Apart from the Sawyer Lake deposit the ore so far in sight can be loaded with shovels after it has been loosened by means of wide-spaced blast holes. The overburden is usually so light that bulldozers will serve to remove it. The ore to be removed from many of the pits lies largely above the valley level so that the cost of loading the ore cars and assembling the trains will be at a minimum.

**Proven Tonnage.**—The deposits have been examined by means of drill-holes which furnished samples for analysis. In most cases the drill-holes went through the ore and into the iron formation beneath; but in a few cases the ore proved to be deeper than it is intended to open the pits for some years to come, and drilling was stopped in ore.

Three hundred million tons of proven ore was set as an arbitrary figure to be reached before the heavy investment required to prepare the region for commercial operations would be warranted. This objective was attained and exceeded by the autumn of 1948.

**Analyses of the Ore.**—The ore is in 25 separate deposits, which vary somewhat in physical nature and will yield shipments with a considerable variety of chemical composition. Reports for 1948 give the following information:—

TONNAGE OF PROVEN ORE AT THE END OF 1948 AND DRY ANALYSES

<i>Class</i>	<i>Proven Ore</i>	<i>Dry Analyses</i>			
		<i>Fe</i>	<i>Mn</i>	<i>P</i>	<i>SiO<sub>2</sub></i>
	Long tons	p.c.	p.c.	p.c.	p.c.
<b>LABRADOR MINING AND EXPLORATION Co.—</b>					
Bessemer.....	53,572,000	60.84	0.21	0.029	10.08
Non-bessemer.....	36,884,000	58.88	0.52	0.119	7.40
Manganiferous.....	10,598,000	49.85	7.53	0.129	8.38
<b>TOTAL.....</b>	<b>101,054,000</b>				
<b>HOLLINGER NORTH SHORE EXPLORATION Co.—</b>					
Bessemer.....	132,955,000	60.63	0.33	0.028	7.98
Non-bessemer.....	62,023,000	57.13	0.58	0.108	7.80
Manganiferous.....	27,796,000	50.38	7.74	0.092	7.51
<b>TOTAL.....</b>	<b>222,774,000</b>				

As the intensive exploration has hardly begun, it is not yet possible to envisage the future of the field in any but a general way. After 50 years of mining on the Mesabi Range of Minnesota, new deposits are still being discovered beneath the deep cover glacial drift. After only three years of superficial prospecting of outcrops the Labrador field has yielded 25 mineable deposits. Plans were made to dig through the thin cover of glacial drift in favourable spots in search of additional deposits during the 1949 field season.

Besides the iron ore, outcrops of manganese ore and of lead, zinc and copper minerals have been found on the concessions. Such ores are, of course, worth a good deal more by the ton than iron ore and, if proven in mineable tonnages, they would be a very valuable addition to the new mineral region. Manganese ore, particularly, is much in demand in Canada and the United States as no appreciable quantity has been found so far on this Continent.

Of the three classes of iron ore, manganiferous iron ore is probably in greatest demand. It provides in convenient and economical form the manganese required in the resultant pig-iron. Bessemer ore, low in phosphorus, fetches a higher price than non-bessemer.

**Operating Conditions.**—In general operating conditions are good. As noted previously, by driving tunnels into the central parts of two of the orebodies the ore can be handled readily by shovels after being loosened by means of wide-spaced blast holes. The initial pits will be above valley level, thus permitting access to the pits on level tracks, avoiding pumping, and ensuring minimum cost in the ore-cars for some years to come.

The climatic conditions of this region during the shipping season are much the same as those of northern Minnesota, though its latitude is about 500 miles farther north, or about the same as Edmonton, Alta. Shipments from the mines will be confined to six months of the year on account of early and late frosts that would freeze the ore in the cars. Shipments by water from Seven Islands will be possible for a longer period as the climate at the coast is much less severe. The winter conditions are probably more severe than those in Minnesota, and constant winds cause large accumulations of drifted snow in some of the valleys but there is no



reason to believe that living conditions at the Labrador mines will be different from those in any other well-conducted mining camp in northern Canada. In all likelihood the personnel who will stay during the winter will be relatively small in number.

*Transportation.*—Access to the Labrador field has been gained, up to the present, entirely by aircraft. A subsidiary has been incorporated to operate 'Dakota' transports between the railway at Mont Joli on the south shore of the St. Lawrence and the Knob Lake Airport in the iron-ore field. Smaller aircraft are used to serve the parties of prospectors and geologists within the concessions.

All supplies and equipment, including trucks, drills and bulldozers, have been taken in by air. A winter road is being prepared to serve railway construction when it starts.

A railway location 350 miles in length has been surveyed from the port of Seven Islands to the main ore zone round Burnt Creek. Through the 100 miles of rugged ground facing the St. Lawrence the location follows the Moisie River and its tributaries. The remainder of the route is over comparatively flat country at an elevation of 1,500 to 1,800 feet and presents no special difficulties. Throughout the whole route good grades have been established, so that long trains can be hauled and the cost of haulage kept at a minimum.

The port of Seven Islands offers a good site for ore docks and storage facilities. A long period of navigation is assured and, if year-round shipment is required, it can possibly be arranged with the aid of an ice-breaker. Facilities will be provided at Seven Islands to grade the ore before putting it aboard ship and to stockpile it as required to give flexibility to rail and water shipments.

Another subsidiary company has been incorporated to hold the railway charter granted to construct the railway, port and other facilities, and to operate the system.

*Power.*—There are several potential power sites within convenient reach of the ore zone, capable of ensuring adequate low-cost power, a factor of considerable advantage. The most convenient power is at Eaton Canyon on the Kaniapiskau River, 25 miles from the Eclipse, the most northerly drilled deposit at June, 1949. This is a naturally advantageous site where a maximum of 500,000 h.p. can be developed in stages as required. A subsidiary company has been incorporated in Quebec for such power development.

Grand Falls on the Hamilton River, with a potential capacity of 1,250,000 h.p., is on the Labrador concession. This site is capable of supplying sufficient low-cost power for the operation of electric-smelting plants, should their construction be considered advisable later on for the reduction of iron and other base-metal ores.

*Royalties and Taxes.*—Agreements were made between the exploration companies and the Quebec and Newfoundland Governments specifying the royalties to be paid. The Newfoundland agreement calls for royalty payments of 5 p.c. of the net profits and the Quebec agreement for from 4 to 7 p.c. of the net profit on a sliding scale and \$100,000 annual rental. The respective Governments have agreed that taxes will be set at similarly moderate rates.

*Markets.*—While an ample supply of Labrador ores will always be held available for Canadian furnaces, the owners consider that the most important prospective market is the area now served by Lake Superior ores at and through the Great Lakes ports, largely in Pennsylvania, Indiana and Illinois. This area could be served most economically through the proposed St. Lawrence Deep Waterway—

in fact the success of the Labrador project is held to depend, to a great extent, upon construction of the Waterway. Until the Waterway is completed it may be possible to ship by rail to the eastern part of this inland area from the ports of Montreal, Que., and Baltimore, U.S.A.

On the Atlantic coast the Labrador ores should find a small market at Sydney, N.S., for admixture with the siliceous ore of Wabana, Newfoundland. Such a mixture holds promise of appreciable reduction in the cost of steel at Sydney.

There are grounds for thinking that the United Kingdom and other European countries will be interested in Labrador ore. A large tonnage of high-grade ore is imported into the United Kingdom each year to mix with British ores which are mainly low in grade. Labrador ores will be suitable for this purpose.

### TITANIUM—THE BASIS OF A NEW INDUSTRY IN QUEBEC\*

Until recent years titanium has been little known and still less used, though it is one of the more abundant elements of the earth's crust. Now it is coming into its own. Titanium dioxide, known in the trade as 'titanium white', is already firmly established as one of the leading pigments. It is used as a pigment for paints, to make paper opaque, to make rubber white, in ceramic glazes, for printing inks, in linoleum, in cosmetics, to de-lustre artificial silk, and for a variety of other purposes.

Titanium-bearing steel has recently come into use as a base for white glazes. Titanium carbide is used as the hard ingredient of the 'carbide' high-speed cutting steels, usually mixed with tungsten carbide. Titanium dioxide, made artificially or in the natural form of rutile, is commonly used as a coating for welding rods. The secret of its wide field of use in the pigment field is its inertness to chemical change which prevents discolouration, and its great covering power which is a result of its high refractive index.

While titanium white is already an important industrial product there is at present no plant in Canada making this refined dioxide of titanium. The value of annual imports into Canada of titanium white and products containing it, which come mainly from the United States, amounts to several million dollars.

Canada has, fortunately, an ample supply of ilmenite, the common titanium ore, which is composed of titanium dioxide (30 to 40 p.c.) combined with oxide of iron. The two oxides cannot be separated effectively by any mechanical means but can be recovered separately by a new metallurgical process to be established in Quebec. Ilmenite is found in three Canadian localities, all in Quebec. At Ivry, 65 miles northwest of Montreal, there are some comparatively small deposits that were mined many years ago. In St. Urbain parish, on the St. Lawrence 60 miles below Quebec, there are larger deposits from which a small annual tonnage is shipped to the United States. A very large deposit discovered in 1946 at Allard Lake (see map p. 508), 22 miles north of Havre St. Pierre and 420 miles below Quebec, is the basis of the new industry now being set up at Sorel, Que.

**The Allard Lake Deposit.**—The Allard Lake deposit, discovered by the prospectors of Kenneco Explorations (Canada) Limited, a subsidiary of Kennecott Copper Corporation, is probably the largest single deposit of the mineral known in the world to-day. Allard Lake (Quebec) Mines, Limited, another subsidiary of Kennecott Copper Corporation has been incorporated to operate the property.

\* Prepared by W. M. Goodwin, Bureau of Mines, Ottawa, and published with the permission of the Director, Mines, Forests and Scientific Services Branch, Department of Mines and Resources, Ottawa.

Drilling has shown that it contains from 150,000,000 to 200,000,000 tons of ore averaging 35 p.c. titanium dioxide and 40 p.c. iron. A large part of the ore comprises a hill and thus can be mined by quarrying, at a minimum of expense. A railway, 27 miles in length from Havre St. Pierre, is under construction and preparations for a suitable ore loading dock are under way. Shipments will be at the rate of about 3,000 tons a day during the shipping season, to supply the metallurgical plant at Sorel in its first stage of development.

The plant under construction at Sorel, on the St. Lawrence River 40 miles below Montreal, will use a new smelting process worked out by the Kennecott Copper Corporation in collaboration with the New Jersey Zinc Company. These two companies have incorporated a subsidiary, Quebec Iron and Titanium Corporation, to operate the smelter. The ilmenite will be treated in large electric furnaces in which the iron oxide will be reduced to metallic iron and separated as pig iron, and the titanium will be concentrated in the residue which carries 70 p.c. titanium dioxide.

A contract has been made with Shawinigan Water and Power Company for 150,000 h.p., to be provided from La Trenché power plant, now under construction on the St. Maurice River, with delivery of power commencing in 1951. The initial smelting plant will treat 1,500 tons of ore a day, which will produce 500 tons of iron and 700 tons of titanium dioxide concentrate. This amount of the concentrate is in proportion to the present market for refined titanium dioxide. The smelting plant at Sorel will be enlarged with the growth of the market and additional power will be drawn as required from the Beauharnois power plant and possibly from Lachine as necessity arises.

Titanium white is likely to be eclipsed in importance in due course by titanium metal. Until three years ago the metal was virtually unknown, attempts until then to reduce the metal from its ores having given impure alloys which were brittle and of no commercial use. The pure metal, it has now been discovered, has properties that are likely to give it an important place in industry. It is little over one-half the weight of iron, and is as strong as steel.

Titanium metal melts at about 1,800 degrees Centigrade, can be rolled, drawn and forged, and has a specific gravity of 4.5 (iron is 7.8). It has excellent corrosion resistance, except for certain acids, and shows no tarnish after thirty days' exposure to salt spray. The tensile strength of the annealed metal is 82,000 lb. per square inch. Cold-worked to 50 p.c. reduction, the tensile strength is 126,000 lb. per square inch.

Up to the present only a few tons of the metal are in existence, all of which is being used for experimental work. The processes by which the metal is made are still far from perfect and the cost per pound is still rather high. The analogy with other new metals such as magnesium and aluminum suggests that the cost will be reduced rapidly as the processes are improved, and that titanium will soon be a commercial metal, in common use.

Manufacture of titanium metal is under way in two pilot plants in the United States. The method is to change the refined titanium dioxide to titanium tetrachloride and to reduce the latter to titanium metal by the use of metallic magnesium. A Canadian company has evolved a method of making the metal from the oxide. The peculiar and valuable properties of the metal suggest important uses when the cost of producing it has been reduced sufficiently.



## Section 1.—Mining Laws and Government Controls

### Subsection 1.—Mining Legislation

The mineral lands of Canada, like other Crown lands, are administered by either the Federal or the Provincial Governments. The Federal Government administers the mineral lands of Yukon and the Northwest Territories as well as those within Indian Reserves and in National Parks; all other mineral lands lying within the boundaries of the several provinces are administered by the respective Provincial Governments.

**Mining Laws and Regulations on Federal Lands.\***—Federal lands to which these regulations apply are those administered by the Lands and Development Services Branch, Department of Mines and Resources, and lie within Yukon and the Northwest Territories. Titles issued for federal lands, the property of the Federal Government, in these Territories reserve to the Crown the mines and minerals that may be found on or under such lands, together with the right of operation.

The Acts and regulations governing mining and quarrying on Federal lands are: *Yukon and Northwest Territories*—Coal Mining Regulations (Commercial), Coal Mining Regulations (Domestic), Petroleum and Natural Gas Regulations and Dredging Regulations; *Yukon*—Placer Mining Act (R.S.C., 1927, c. 216), Quartz Mining Act (R.S.C., 1927, c. 217); *Northwest Territories*—Quartz Mining Regulations, Placer Mining Regulations, Quarrying Regulations and regulations governing the removal of sand, stone and gravel from the beds of rivers.

Most of the regulations above mentioned have been amended recently and copies thereof and also copies of the Acts are available from the Lands and Development Services Branch of the Department of Mines and Resources, Ottawa.

**Provincial Mining Laws and Regulations.†**—The granting of land in any province, except Ontario, no longer carries with it mining rights upon or under such land. In Ontario, mineral rights are expressly reserved if they are not to be included. Some early grants in British Columbia, Manitoba, New Brunswick and Quebec also included certain mineral rights. Otherwise, mining rights must be separately obtained by lease or grant from the provincial authority administering the mining laws and regulations. Mining activities may be classified as placer, general minerals (or veined minerals and bedded minerals), fuel (coal, petroleum, gas) and quarrying. Under these divisions of the provincial mining industry, regulations may be summarized as follows:—

**Placer.**—In those provinces in which placer deposits occur there are regulations defining the size of placer holdings, the terms under which they may be acquired and held and the royalties to be paid.

**General Minerals.**—These are sometimes described as quartz, lode minerals or minerals in place. The most elaborate laws and regulations apply in this division. In all provinces, except Alberta, a prospector's or miner's licence, valid for one year, must be obtained to search for mineral deposits, the licence being general in some cases but limited in others. A claim of promising ground of a specified size may then be staked. This claim must be recorded within a time limit, with the payment of recording fees. Work to a specified value per annum must be performed upon the claim for a period up to ten years when a grant or lease of the mining rights

\* Revised by the Lands and Development Services Branch, Department of Mines and Resources, Ottawa.

† Compiled from material supplied by the Provincial Governments.



may be obtained, subject to agreement to develop as well as the payment of fees or an annual rental. The taxation most frequently applied is a percentage of net profits of producing mines or royalties.

*Fuels.*—In those provinces in which coal occurs, the size of holdings is laid down and the conditions regarding work and rental under which they may be held. In some cases royalties are provided for. Acts or regulations govern methods of production. In the cases of petroleum and natural gas, a permit to drill on promising ground is usually first obtained. If oil or gas is discovered the operator usually obtains a lease or grant of a limited area subject to carrying out drilling obligations and paying a rental, fees or a royalty on production. Discovery, however, is not necessarily a prerequisite to obtaining a lease. Regulations usually govern methods of production.

*Quarrying.*—Regulations under this heading define the size of holding and the terms of lease or grant.

The legislation controlling mining and minerals in each province is given at pp. 278-279 of the 1942 Year Book. Copies of the legislation and regulations and details concerning them may be obtained from the provincial authorities—given in the Directory of Sources of Official Information at the end of this volume.

### Subsection 2.—Government Controls

**Control of Non-Ferrous Metals.**—The controls established to stimulate the production of non-ferrous metals, petroleum and coal during the war years 1939-45 were, by 1945, either dissolved or remained functions of supply distribution and prices taken over by the Wartime Prices and Trade Board (see 1947 Year Book, p. 441). Surviving controls, consisting mostly of export controls, were in turn transferred from the administration of the Wartime Prices and Trade Board to the Department of Trade and Commerce in 1948 (see Chapter XXII).

**The Dominion Coal Board.\***—This Board was created in October, 1947 (11 Geo. VI, c. 57) to take over the powers, duties and functions of the Dominion Fuel Board that had systematically studied the fuel situation on behalf of the Government since 1922 (see 1947 Year Book, p. 441). The powers of the Dominion Coal Board are, however, much wider and its authority broader than those of the former Fuel Board. It has, for instance, wide emergency powers in regard to production and marketing, and administers the coal policy of the Government with the aim of securing a stable and prosperous industry with a minimum of public assistance.

Specifically the Board is charged with the responsibility of implementing the recommendations of the Royal Commission on Coal and the Act specifically states that it may undertake researches and investigations with respect to:—

- (a) the systems and methods of mining coal;
- (b) the problems and techniques of marketing and distributing coal;
- (c) the physical and chemical characteristics of coal produced in Canada with a view to developing new uses therefor;
- (d) the position of coal in relation to other forms of fuel or energy available for use in Canada;
- (e) the cost of production and distribution of coal and the accounting methods adopted or used by persons dealing in coal;
- (f) the co-ordination of the activities of Government Departments relating to coal and
- (g) such other matters as the Minister may request or as the Board may deem necessary for carrying out any of the provisions or purposes of this Act.

The Board also administers, in accordance with regulations of the Governor in Council, any subventions or subsidies relating to coal voted by Parliament. (See Chapter XXI.)

\* Contributed by F. G. Neate, Executive Secretary, Dominion Coal Board, Ottawa.

Wide powers are provided to deal with production and distribution and use of fuel in case of a national fuel emergency.

## Section 2.—The Coal Reserves of Canada\*

A description of the coal deposits and coal resources of Canada appears in the 1946 Year Book, pp. 337-347. The classification of coals described and indicated on the legends of the accompanying maps in that article, is the uniform scientific classification of the coals of the North American Continent as a whole which was evolved and later adopted after almost ten years of united research by the Committee of the American Society of Testing Materials, and the Canadian Associate Committee on Coal Classification that was set up in 1928 by the National Research Council of Canada.

The adoption of this classification made possible for the first time an accurate comparison of the coal deposits of Canada with those of the United States as shown on the map of the Coal Fields in Canada and the United States that appears in the 1946 article. Prior to this investigation, coal deposits in these two countries having identical chemical and physical characteristics were being assigned to different groups and even to different classes.

The classification of coals by rank is based on the fact that different coals represent different stages in the process of metamorphism from the original vegetation through the series of peat, lignite, sub-bituminous, bituminous, and anthracite, and that each of these stages shows a different percentage of fixed carbon content and a different calorific value as calculated on the mineral-matter-free basis (ash free). The higher rank coals are classified according to the percentage of fixed carbon on a dry basis, whereas the lower rank coals, i.e., those containing less than 69 p.c. fixed carbon, are classified according to B.t.u. per pound on the moist (as mined) basis. The limits of the thirteen groups and the four main classes are indicated in the following statement.

\* Prepared by B. R. MacKay, Geologist, Geological Survey, and published by permission of the Director of the Mines, Forests and Scientific Services Branch, Department of Mines and Resources, Ottawa.

### CLASSIFICATION OF COALS BY RANK (American Society of Testing Materials designation 1937)

Class	Group	Limits of Fixed Carbon or B.t.u. Mineral-Matter- Free Basis	Requisite Physical Properties
I—Anthracite <sup>1</sup> .....	1. Meta-anthracite.... 2. Anthracite..... 3. Semi-anthracite....	Dry F.C. 98 p.c. or more. Dry F.C. 92 to 98 p.c. Dry F.C. 86 to 92 p.c.....	Non-agglomerating.
II—Bituminous <sup>2</sup> .....	1. Low Volatile..... 2. Medium Volatile.... 3. High Volatile A.... 4. High Volatile B.... 5. High Volatile C....	Dry F.C. 78 to 86 p.c. Dry F.C. 69 to 78 p.c. Dry F.C. less than 69 p.c. and moist <sup>3</sup> B.t.u. 14,000 or more. Moist <sup>3</sup> B.t.u. 13,000 to 14,000. Moist <sup>3</sup> B.t.u. 11,000 to 13,000...	Either agglomerating or non-weathering. <sup>4</sup>
III—Sub-bituminous...	1. A Coal..... 2. B Coal..... 3. C <sup>5</sup> Coal.....	Moist <sup>3</sup> B.t.u. 11,000 to 13,000... Moist <sup>3</sup> B.t.u. 9,500 to 11,000. Moist <sup>3</sup> B.t.u. 8,300 to 9,500.	Both weathering and agglomerating.
IV—Lignitic.....	1. Lignite..... 2. Brown coal.....	Moist <sup>3</sup> B.t.u. less than 8,300... Moist <sup>3</sup> B.t.u. less than 8,300...	Consolidated. Unconsolidated.

<sup>1</sup> If coal is agglomerating it is classified in the Low Volatile Bituminous group. <sup>2</sup> There may be coking and non-coking varieties in each group of bituminous coal. <sup>3</sup> Moist B.t.u. refers to coal containing its natural bed-moisture, but not including visible water on the surface of the coal. <sup>4</sup> There are three varieties of coal in the High Volatile C Bituminous group, i.e., (1) agglomerating and non-weathering, (2) agglomerating and weathering, and (3) non-agglomerating and non-weathering. <sup>5</sup> Coals having 69 p.c. or more fixed carbon on a dry mineral-matter-free basis shall be classified according to fixed carbon regardless of B.t.u.

1.—Provincial Coal Reserves, Classified by Rank, with Percentages of Total for Each Province

Rank	Nova Scotia		New Brunswick		Ontario		Manitoba		Saskatchewan	
	Amount	P.C. of Total	Amount	P.C. of Total	Amount	P.C. of Total	Amount	P.C. of Total	Amount	P.C. of Total
Probable Reserves—	'000 tons		'000 tons		'000 tons		'000 tons		'000 tons	
Low volatile bituminous including anthracite.....	2,360	0.1	—	—	—	—	—	—	—	—
Medium volatile bituminous.....	25,504	0.8	—	—	—	—	—	—	—	—
High volatile bituminous.....	1,939,160	62.2	89,814	88.7	—	—	—	—	—	—
Sub-bituminous.....	—	—	—	—	100,000	66.7	33,600	33.4	13,126,880	54.4
Lignite.....	—	—	—	—	—	—	—	—	—	—
Totals, Probable Reserves.....	1,967,024	63.1	89,814	88.7	100,000	66.7	33,600	33.4	13,126,880	54.4
Possible Reserves—										
Low volatile bituminous including anthracite.....	6,720	0.2	—	—	—	—	—	—	—	—
Medium volatile bituminous.....	16,000	0.5	—	—	—	—	—	—	—	—
High volatile bituminous.....	1,124,662	36.2	11,566	11.3	—	—	—	—	—	—
Sub-bituminous.....	—	—	—	—	50,000	33.3	67,200	66.6	11,004,000	45.6
Lignite.....	—	—	—	—	—	—	—	—	—	—
Totals, Possible Reserves.....	1,147,382	36.9	11,566	11.3	50,000	33.3	67,200	66.6	11,004,000	45.6
Grand Totals, Probable and Possible Reserves.....	3,114,406	100.0	101,380	100.0	150,000	100.0	100,800	100.0	24,130,880	100.0
	Alberta		British Columbia		Yukon		Northwest Territories		Canada	
	Amount	P.C. of Total	Amount	P.C. of Total	Amount	P.C. of Total	Amount	P.C. of Total	Amount	P.C. of Total
Probable Reserves—	'000 tons		'000 tons		'000 tons		'000 tons		'000 tons	
Low volatile bituminous including anthracite.....	8,797,600	18.3	1,033,200	5.5	—	—	—	—	9,933,160	10.0
Medium volatile bituminous.....	11,854,080	24.5	10,337,748	54.8	87,360	4.6	—	—	22,304,992	22.5
High volatile bituminous.....	7,540,940	15.3	278,932	1.5	24,040	1.3	30,240	1.1	9,903,726	10.0
Sub-bituminous.....	6,245,120	13.0	—	—	322,560	17.1	109,760	4.2	6,245,120	6.4
Lignite.....	—	—	145,600	0.8	—	—	—	—	13,858,400	14.0
Totals, Probable Reserves.....	34,437,740	71.9	11,795,480	62.6	434,560	23.0	140,000	5.3	62,125,098	62.9
Possible Reserves—										
Low volatile bituminous including anthracite.....	4,334,400	9.0	1,738,800	9.2	—	—	—	—	6,070,920	6.1
Medium volatile bituminous.....	3,315,200	6.9	4,551,680	24.2	182,560	9.7	—	—	8,065,440	8.2
High volatile bituminous.....	3,473,120	7.3	680,996	3.4	28,560	1.6	1,696,800	64.3	6,965,664	7.1
Sub-bituminous.....	2,310,480	4.8	—	—	1,238,720	65.7	792,960	30.4	2,310,480	2.3
Lignite.....	3,360	0.1	113,120	0.6	—	—	—	—	13,269,360	13.4
Totals, Possible Reserves.....	13,436,560	28.1	7,034,556	37.4	1,449,840	77.0	2,489,760	94.7	36,690,864	37.1
Grand Totals, Probable and Possible Reserves.....	47,874,300	100.0	18,830,036	100.0	1,884,400	100.0	2,629,760	100.0	98,815,962	100.0



Table 1 gives the most recent estimate of Canadian mineable coal reserves, based on data compiled for the Report of the Royal Commission on Coal, 1946. The method by which the estimates are arrived at is described at pp. 466-467 of the 1947 Year Book.

It will be noted that the estimated coal reserves are arranged in five different classes. The reason for this is that more than one rank of coal occurs in some of the deposits and the tonnages of some of these are so small or indefinite, due to the lack of chemical analysis, that it is difficult or impossible to separate the different ranks.

The reserves of each of these classes are calculated under the headings "Probable Reserves" and "Possible (Additional) Reserves". The Probable Reserves are those that have been calculated on considerable geological, drilling and mining development data, whereas the Possible (Additional) Reserves are those based on geological data of much more limited extent.

### Section 3.—Summary of Mineral Production

The importance of mineral production as compared with other primary industries in Canada is indicated in Chapter X while its part in the foreign trade of Canada is dealt with in Chapter XXII, Part I, especially Section 4.

#### Subsection 1.—Value and Volume of Mineral Production

**Historical Statistics.**—Definite records of the annual value of mineral production go back to 1886 only, although actual production began with the earliest settlements. The figures given in Table 2 are not strictly comparable throughout the whole period, minor changes having been adopted in methods of computing both the metallic content of ores sold and the valuations of the products. Earlier methods resulted in a somewhat higher value than those now in use would have shown. However, the changes do not interfere with the general usefulness of the figures in showing the broad trends in the mineral industry.

2.—Value of Mineral Production, 1886-1948

Year	Total Value	Value per Capita	Year	Total Value	Value per Capita	Year	Total Value	Value per Capita
	\$	\$		\$	\$		\$	\$
1886.....	10,221,255	2-23	1930.....	279,873,578	27-42	1939.....	474,602,059	42-12
1890.....	16,763,353	3-51				1940.....	529,825,035	46-55
1895.....	20,505,917	4-08	1931 <sup>1</sup> .....	230,434,726	22-21	1941.....	560,241,290	48-69
1900.....	64,420,877	12-15	1932.....	191,228,225	18-19	1942.....	566,768,672	48-63
1905.....	69,078,999	11-51	1933.....	221,495,253	20-83	1943.....	530,053,966	44-87
1910.....	106,823,623	15-29	1934.....	278,161,590	25-90	1944.....	485,819,114	40-57
1915.....	137,109,171	17-18	1935.....	312,344,457	28-80	1945.....	498,755,181	41-15
1920.....	227,859,665	26-63	1936.....	361,919,372	33-05	1946.....	502,816,251	40-86
1925.....	226,583,333	24-38	1937.....	457,359,092	41-41	1947.....	644,869,975 <sup>2</sup>	51-25 <sup>2</sup>
1929.....	310,850,246	31-73	1938.....	441,823,237	39-62	1948.....	806,180,215 <sup>2</sup>	62-53 <sup>2</sup>

<sup>1</sup> Beginning with 1931, exchange equalization on gold production is included.  
revision.

<sup>2</sup> Subject to

**Current Production.**—Substantial improvement in the volume of production of the major metals and non-metals, and higher market prices for most of them, brought the value of Canada's mineral production in 1948 to a record total of



\$806,000,000. In several of the war years the output had cleared the \$500,000,000 mark, and in 1947 it had jumped to almost \$645,000,000, but the total for 1948 was far beyond any previous figure.

About one-half of this gain in value in 1948 was due to expansion in physical output. From the data available the tonnage of ore raised by Canadian metal mines in 1948 was from 10 to 12 p.c. greater than in the previous year. Output of gold bullion was higher by nearly 14 p.c., zinc increased 12 p.c., copper 6 p.c., lead 4 p.c., and nickel 9 p.c. Amongst the non-metallics there were even greater gains. The tonnage of coal was 16 p.c. above the 1947 figure, asbestos increased by 7 p.c., gypsum 29 p.c., cement 18 p.c. and crude petroleum 57 p.c.

The other chief factor which helped to increase the output value was the further advance in world prices for the principal base metals that constitute a very large part of Canada's mineral output. Quotations for electrolytic copper at New York rose to 23.2 cents before the year-end, and the average for 1948 was approximately 2 cents per lb. higher than in 1947. Lead reached a high of 21.5 cents, and over the year its quotations averaged 4.5 cents per lb. more than in the previous year. Electrolytic zinc rose to 17.5 cents per lb. for a gain of 2.75 cents on the yearly average, and quotations for electrolytic nickel rose to 40 cents per lb. or 5 cents more than the quotations which had prevailed for some months. Most other metals and non-metals were also quoted at higher levels than in 1947.

Each province participated in the 1948 advance in output. In Ontario the gain was 15 p.c. to \$286,000,000 and in Quebec the increase was 28 p.c. to \$147,000,000. Elsewhere in Canada the advances were as follows: British Columbia, 26 p.c. to \$147,000,000; Nova Scotia, 64 p.c. to \$56,000,000; Alberta 37 p.c. to \$93,000,000; Saskatchewan, 6 p.c. to \$34,000,000; Manitoba, 47 p.c. to \$27,000,000; New Brunswick, 26 p.c. to \$7,000,000; the Northwest Territories, 58 p.c. to \$4,300,000, and Yukon, 68 p.c. to \$3,500,000.

For the entire metals group the aggregate value in 1948 was \$484,000,000, or 22 p.c. more than in the previous year. For mineral fuels the advance in value was 44 p.c. to \$159,000,000 and for structural materials it was 17 p.c. to \$99,000,000. Other non-metallics increased 19 p.c. to \$65,000,000.

In placing a value on Canada's mineral production it has been customary to value the metals at average quotations (converted to Canadian funds) on the New York or the London markets, depending usually on the relative exports to the United Kingdom and the United States. In the war years, however, with the inauguration of price controls, it was necessary to depart from this practice, and during this period the average prices were supplied by the Canadian Metals Controller. In 1946 a weighted average was computed by applying the Canadian ceiling prices to the amounts sold for domestic use and the New York averages, in terms of Canadian dollars, to the quantities which were sold for export. A similar procedure was followed in 1947 during the period that price controls were in existence. The domestic ceiling prices on copper, lead and zinc were raised early in 1947 and ceilings were removed entirely about mid-year.

## 3.—Quantities and Values of Minerals Produced, 1945-47

Mineral	1945		1946		1947	
	Quantity	Value	Quantity	Value	Quantity	Value
<b>Metallics</b>		\$		\$		\$
Antimony..... lb.	1,667,951	290,557	642,145	96,322	1,150,463	384,255
Arsenic (As <sub>2</sub> O <sub>3</sub> )..... "	2,045,730	130,909	745,885	38,264	787,736	49,348
Barium..... "	—	—	—	—	568	1,278
Bismuth..... "	189,815	260,047	240,504	336,706	284,372	560,213
Cadmium..... "	646,064	639,603	802,648	979,230	718,534	1,235,879
Calcium..... "	22,720	19,312	53,548	68,720	602,665	642,607
Chromite..... ton	5,755	160,752	3,110	61,123	2,162	42,159
Cobalt..... lb.	109,123	90,026	73,900	70,215	572,673	875,644
Copper..... "	474,914,052	59,322,261	367,936,875	46,632,093	451,723,093	91,541,888
Gold..... fine oz.	2,696,727	103,823,990	2,832,554	104,096,359	3,070,221	107,457,735
Iron ore..... ton	1,135,444	3,635,095	1,549,523	6,822,947	1,919,366	9,313,201
Lead..... lb.	346,994,472	17,349,723	353,973,776	23,893,230	323,336,687	44,200,124
Magnesium..... "	7,358,545	1,607,264	320,677	75,538	—	—
Manganese ore..... "	—	—	—	—	225	7,875
Molybdenite concentrates..... "	978,117	411,663	736,400	295,640	759,795	309,048
Nickel..... "	245,130,983	61,982,133	192,124,537	45,385,155	237,251,496	70,650,764
Palladium, rhodium, iridium, etc..... fine oz.	458,674	18,671,074	117,566	5,162,801	110,332	4,387,740
Platinum..... oz.	208,234	8,017,010	121,771	7,672,791	94,570	5,582,467
Pitchblende products..... "	—	—	—	—	5	1
Selenium..... lb.	379,187	728,039	521,867	949,798	501,090	937,038
Silver..... fine oz.	12,942,906	6,083,166	12,544,100	10,493,139	12,504,018	9,002,893
Tellurium..... lb.	484	929	15,848	24,405	9,194	16,090
Tin..... "	849,983	492,990	874,186	507,028	714,198	517,794
Titanium ore..... ton	14,147	67,575	1,406	7,735	7,104	36,036
Tungsten concentrates..... lb.	1,153	1,045	—	—	496,023	680,792
Zinc..... "	517,213,604	33,308,556	470,620,360	36,755,450	415,725,826	46,686,010
<b>Totals, Metallics.....</b>	<b>...</b>	<b>317,093,719</b>	<b>...</b>	<b>290,424,689</b>	<b>...</b>	<b>395,118,878</b>
<b>Fuels</b>						
Coal..... ton	16,506,713	67,588,402	17,806,450	75,361,481	15,868,866	77,475,017
Natural gas..... M cu. ft.	48,411,585	12,309,564	47,900,484	12,165,050	52,656,567	13,429,558
Peat..... ton	118	1,062	145	1,305	95	950
Petroleum, crude..... bbl.	8,482,796	13,632,248	7,585,555	14,989,052	7,692,492	19,575,682
<b>Totals, Fuels.....</b>	<b>...</b>	<b>93,531,276</b>	<b>...</b>	<b>102,516,888</b>	<b>...</b>	<b>110,481,207</b>
<b>Non-Metallics (Excluding Fuels)</b>						
Asbestos..... ton	466,897	22,805,157	558,181	25,240,562	661,821	33,005,748
Barite..... "	139,589	1,211,403	120,419	1,006,473	128,675	1,880,753
Corundum..... "	1,317	130,393	742	102,340	—	—
Diatomite..... "	46	1,238	90	2,532	103	2,677
Feldspar..... "	30,246	282,656	35,243	384,677	36,104	381,360
Fluorspar..... "	7,369	233,708	8,042	237,491	7,186	209,886
Garnets (schist)..... "	—	—	2	1,200	1	300
Graphite..... "	1,910	179,001	1,975	180,405	2,398	207,364
Grindstones..... "	225	10,870	295	17,450	335	21,475
Gypsum..... "	839,731	1,783,290	1,810,937	3,671,053	2,496,984	4,734,853
Iron oxides (ochre)..... "	10,314	172,053	12,695	152,268	13,418	258,322
Magnetite dolomite..... "	—	1,278,596 <sup>2</sup>	—	1,225,593 <sup>2</sup>	—	1,238,948
Mica..... lb.	7,044,221	233,270	8,720,669	199,039	8,818,755	200,903
Mineral waters..... imp. gal.	244,761	126,499	217,842	122,404	198,952	117,440
Nepheline syenite..... ton	61,345	275,766	61,261	229,198	66,995	341,635
Peat moss..... "	83,963	2,011,139	96,839	2,395,649	80,019	2,279,821
Phosphate..... "	299	4,356	57	869	—	—
Quartz..... "	1,513,628	1,535,458	1,413,378	1,554,798	1,836,428	1,796,612
Salt..... "	673,076	4,054,720	537,985	3,626,165	728,545	4,436,930
Silica brick..... M	4,208	317,263	2,902	197,804	3,094	193,998
Soapstone <sup>3</sup> ..... ton	14,225	153,694	14,914	150,004	13,279	123,467
Sodium carbonate..... "	286	3,146	—	—	163	1,793
Sodium sulphate..... "	93,068	884,322	105,919	1,117,683	163,290	1,793,043
Sulphur <sup>4</sup> ..... "	250,114	1,881,321	234,771	1,784,666	221,781	1,822,867
Talc..... "	12,863	141,194	14,439	153,680	13,430	142,910
<b>Totals, Non-Metallics.....</b>	<b>...</b>	<b>39,710,513</b>	<b>...</b>	<b>43,754,453</b>	<b>...</b>	<b>54,693,105</b>

For footnotes, see end of table, p. 521.

## 3.—Quantities and Values of Minerals Produced, 1945-47—concluded

Mineral	1945		1946		1947	
	Quantity	Value	Quantity	Value	Quantity	Value
		\$		\$		\$
<b>Clay Products and Other Structural Materials</b>						
CLAY PRODUCTS						
Brick—						
Soft Mud Process—						
Face..... M	5,424	128,762	10,858	223,272	11,672	254,336
Common..... M	21,516	378,884	17,013	347,937	20,583	459,405
Stiff Mud Process (wire cut)—						
Face..... M	76,094	2,074,833	106,128	3,050,611	107,504	3,356,742
Common..... M	51,413	940,266	65,406	1,262,178	66,634	1,433,868
Dry Press—						
Face..... M	25,680	636,721	41,573	1,093,612	50,350	1,476,529
Common..... M	19,993	400,091	31,239	645,252	38,548	895,395
Fancy or ornamental						
brick..... M	81	5,806	1	82	1	61
Sewer brick..... M	41	816	171	4,573	154	4,378
Paving brick..... M	206	12,010	53	3,681	—	13
Firebrick..... M	3,466	186,651	3,368	205,849	3,780	250,668
Fireclay and other clay ton	22,954	65,107	35,794	75,586	25,528	75,155
Bentonite.....	1	170,799	1	211,825	1	258,327
Fireclay blocks and shapes..	...	225,275	...	222,430	...	274,783
Hollow blocks..... ton	94,244	998,210	129,694	1,453,549	149,733	1,950,098
Roofing tile..... M	—	—	1	97	—	—
Floor tile (quarries).....	...	46,365	...	50,699	...	56,845
Drain tile..... M	13,393	495,875	18,051	677,564	19,725	843,855
Sewer pipe, copings, flue						
linings, etc.....	...	1,178,141	...	1,354,839	...	1,886,457
Pottery, glazed or unglazed..	...	930,567	...	1,195,478	...	853,440
Other clay products.....	...	37,913	...	128,253	...	105,834
TOTALS, CLAY PRODUCTS....	...	8,913,092	...	12,207,372	...	14,486,189
OTHER STRUCTURAL MATERIALS						
Cement..... bbl.	8,471,679	14,246,480	11,560,483	20,122,503	11,936,245	21,968,909
Lime..... ton	832,253	6,525,038	840,799	7,074,940	977,413	8,542,507
Sand and gravel..... "	29,750,703	10,568,363	39,949,994	15,529,700	56,789,569	23,114,431
Stone—						
Granite..... "	221,630	1,284,748	319,354	2,006,297	551,527	3,175,364
Limestone..... "	5,677,192	6,284,379	7,217,600	8,178,513	9,497,754	11,966,520
Marble..... "	13,388	113,337	21,796	201,817	45,574	326,605
Sandstone..... "	291,430	466,397	495,777	778,213	792,900	975,394
Slate..... "	1,915	17,839	1,733	20,871	1,633	20,866
TOTALS, OTHER STRUCTURAL MATERIALS.....	...	39,506,581	...	53,912,854	...	70,090,596
TOTALS, CLAY PRODUCTS and OTHER STRUCTURAL MATERIALS.....	...	48,419,673	...	66,120,221	...	84,576,785
Grand Totals.....	...	498,755,181	...	502,516,251	...	644,869,975

<sup>1</sup> Not released for publication.<sup>2</sup> Including brucite.<sup>3</sup> Includes some talc.<sup>4</sup> Sulphur content of pyrites shipped and estimated sulphur contained in the sulphuric acid made from smelter gases.<sup>5</sup> Includes relatively large quantities used in the manufacture of chemicals.

**Analysis of Current Value and Volume.**—In order to interpret more clearly and simply the trends in mineral production in Canada over the past ten years, Table 4 gives the percentage of the total value contributed by each principal mineral in each year. Values upon which percentages in this table are based are the annual values of mineral production expressed in Canadian currency as published in Tables 2 and 3.

#### 4.—Percentages of the Total Value of Mineral Production, by Principal Minerals, 1938-47

Mineral	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
<b>METALLICS</b>										
Copper.....	12.8	12.8	12.4	11.5	10.7	12.7	13.4	11.9	9.3	14.2
Gold.....	37.6	38.8	38.6	36.7	32.9	26.5	23.2	20.8	20.7	16.7
Lead.....	3.1	2.6	3.0	2.8	3.0	3.1	2.8	3.5	4.8	6.9
Nickel.....	12.2	10.7	11.3	12.3	12.4	13.5	14.2	12.4	9.0	11.0
Pitchblende products.....	..	0.2	0.1	0.2	1	1	1	1	1	1
Platinum metals.....	2.0	2.0	1.5	1.5	3.4	2.6	1.7	5.4	2.6	1.5
Silver.....	2.2	2.0	1.7	1.5	1.5	1.5	1.2	1.2	2.1	1.4
Zinc.....	2.7	2.6	2.7	3.1	3.5	4.6	4.9	6.7	7.3	7.2
<b>TOTALS, METALLICS<sup>2</sup>.....</b>	<b>73.1</b>	<b>72.4</b>	<b>72.2</b>	<b>70.6</b>	<b>69.2</b>	<b>67.3</b>	<b>63.5</b>	<b>63.6</b>	<b>57.8</b>	<b>61.3</b>
<b>FUELS</b>										
Coal.....	10.0	10.2	10.3	10.4	11.1	11.9	14.5	13.5	15.0	12.0
Natural gas.....	2.6	2.6	2.5	2.2	2.4	2.5	2.3	2.5	2.4	2.1
Petroleum.....	2.1	2.1	2.1	2.6	2.8	3.1	3.2	2.7	3.0	3.0
<b>TOTALS, FUELS.....</b>	<b>14.7</b>	<b>14.9</b>	<b>14.9</b>	<b>15.2</b>	<b>16.3</b>	<b>17.5</b>	<b>20.0</b>	<b>18.7</b>	<b>20.4</b>	<b>17.1</b>
<b>NON-METALLICS (EXCLUDING FUELS)</b>										
Asbestos.....	2.9	3.3	2.9	3.8	4.0	4.4	4.2	4.6	5.0	5.1
Gypsum.....	0.3	0.4	0.4	0.4	0.2	0.3	0.3	0.4	0.7	0.7
Quartz.....	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
Salt.....	0.4	0.5	0.5	0.6	0.7	0.8	0.8	0.8	0.7	0.7
Sulphur.....	0.2	0.4	0.2	0.3	0.4	0.3	0.4	0.4	0.4	0.3
<b>TOTALS, NON-METALLICS<sup>2</sup>.....</b>	<b>4.5</b>	<b>5.3</b>	<b>4.9</b>	<b>6.1</b>	<b>6.5</b>	<b>7.3</b>	<b>7.7</b>	<b>8.0</b>	<b>8.7</b>	<b>8.5</b>
<b>TOTALS, CLAY PRODUCTS.....</b>	<b>1.0</b>	<b>1.1</b>	<b>1.2</b>	<b>1.4</b>	<b>1.2</b>	<b>1.2</b>	<b>1.4</b>	<b>1.8</b>	<b>2.4</b>	<b>2.2</b>
<b>OTHER STRUCTURAL MATERIALS</b>										
Cement.....	1.9	1.8	2.2	2.3	2.5	2.2	2.4	2.9	4.0	3.4
Lime.....	0.8	0.8	1.0	1.1	1.2	1.3	1.4	1.3	1.4	1.3
Sand and gravel.....	2.7	2.4	2.2	1.9	1.6	1.7	2.1	2.1	3.1	3.6
Stone.....	1.3	1.3	1.4	1.4	1.5	1.5	1.5	1.6	2.2	2.6
<b>TOTALS, OTHER STRUCTURAL MATERIALS.....</b>	<b>6.7</b>	<b>6.3</b>	<b>6.8</b>	<b>6.7</b>	<b>6.8</b>	<b>6.7</b>	<b>7.4</b>	<b>7.9</b>	<b>10.7</b>	<b>10.9</b>
<b>Grand Totals.....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

<sup>1</sup> Not released for publication.<sup>2</sup> Includes minor items not specified.

Although the year 1926 was not a normal year in mineral production to the same extent as in some other productive fields, the rapid changes that have resulted from circumstances arising since then can be seen more clearly by using 1926 as a base year. Table 5 shows the indexes of volume of mineral production by principal minerals, for the years 1938-47.

#### 5.—Indexes of Volume of Mineral Production, by Principal Minerals, 1938-47

(1926=100)

NOTE.—Indexes for 1927-37 will be found at p. 319 of the 1940 Year Book.

Mineral	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947
<b>METALLICS</b>										
Cobalt.....	69.1	110.2	119.5	39.6	12.6	26.5	5.5	16.4	11.1	86.1
Copper.....	429.2	457.4	492.6	483.4	453.6	432.2	411.0	356.8	276.4	339.4
Gold.....	269.4	290.4	302.8	304.7	276.0	208.1	166.6	153.7	161.5	175.0
Lead.....	147.6	136.9	166.3	162.1	180.5	156.5	107.3	122.3	124.7	113.9
Nickel.....	320.4	344.1	373.7	429.5	434.0	43.8	417.9	373.0	292.4	361.0
Platinum metals.....	1694.4	1454.6	1023.3	1134.6	2598.1	1768.8	1025.6	3412.2	1224.5	1048.4
Silver.....	99.3	103.5	106.5	97.2	92.5	77.5	60.9	57.9	56.1	55.9
Zinc.....	254.4	263.1	282.8	341.7	387.0	407.3	367.4	345.0	313.9	277.3



### 5.—Indexes of Volume of Mineral Production, by Principal Minerals, 1938-47 —concluded

Mineral	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947
<b>FUELS</b>										
Coal.....	86.7	94.3	106.6	110.6	114.5	108.4	103.3	94.1	108.1	96.3
Natural gas.....	174.1	183.2	214.7	226.4	237.9	230.5	234.6	252.0	249.4	274.1
Petroleum.....	1911.4	2147.5	2357.3	2790.6	2844.0	2758.3	2771.2	2327.6	2081.4	2110.7
<b>NON-METALLICS (EXCLUDING FUELS)</b>										
Asbestos.....	103.7	130.4	124.1	171.0	157.3	167.2	150.1	167.1	199.8	236.9
Gypsum.....	114.2	160.9	163.9	180.3	64.1	50.6	67.5	95.0	204.9	282.6
Quartz <sup>1</sup> .....	594.6	682.1	800.7	884.5	748.9	765.6	749.8	652.2	609.0	791.3
Salt.....	167.6	161.7	177.0	213.6	249.0	261.9	264.8	256.4	204.9	277.5
Sulphur <sup>2</sup> .....	291.3	547.5	442.2	673.8	787.0	667.3	642.9	648.1	608.4	574.7
<b>STRUCTURAL MATERIALS<sup>3</sup></b>										
Cement.....	63.4	65.8	86.8	96.1	104.8	83.9	82.6	97.3	132.8	137.1
Lime.....	117.6	133.4	173.2	208.0	213.8	219.3	213.9	201.1	203.1	236.1
Sand and gravel.....	188.3	182.9	183.3	184.7	154.0	150.4	166.0	173.9	233.4	331.9
Stone.....	80.0	85.1	116.4	124.1	124.7	112.9	93.7	97.0	125.9	170.2

<sup>1</sup> Beginning with 1936, low-grade natural silica sand used as non-ferrous smelter flux is included.  
<sup>2</sup> 1928=100, previous years not being comparable.      <sup>3</sup> Excluding clay products.

### Subsection 2.—Provincial Distribution of Mineral Production

Since 1907, Ontario has been the principal mineral-producing province of Canada. In 1940, Ontario accounted for 49 p.c. of Canada's total but its share has declined steadily to 36 p.c. in 1948. In the latter year, Ontario's principal metal, in point of value, was nickel which exceeded gold; copper was next, and these three leading metals accounted for 74 p.c. of the total mineral production of the province. Higher prices for lead and zinc placed British Columbia above Quebec for the second time since 1937. A great part of Quebec's mineral production is made up of gold, copper and asbestos. Nova Scotia and Alberta are the most important coal-producing provinces. The discovery and development of the Flin Flon and Sherrit-Gordon ore bodies resulted in the Provinces of Manitoba and Saskatchewan becoming important producers of base metals, gold and silver. Alberta, besides being a big producer of coal, is the most important province for the production of petroleum and natural gas.

### 6.—Mineral Production, by Provinces, 1939-48

NOTE.—Figures for the years 1899-1910, inclusive, will be found at p. 345 of the 1933 Year Book; for 1911-28 at p. 323 of the 1939 edition; and for 1929-38 at p. 323 of the 1946 edition.

Year	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and N.W.T.
	\$	\$	\$	\$	\$	\$	\$	\$	\$
1939..	30,746,200	3,949,433	77,385,998	232,519,948	17,137,930	8,794,090	30,661,617	65,216,745	8,210,098
1940..	33,318,587	3,435,916	86,313,491	261,453,349	17,823,522	11,505,858	35,092,337	74,134,485	6,712,490
1941..	32,569,867	3,690,375	99,651,044	267,435,727	16,689,867	15,020,555	41,364,385	78,841,180	6,978,290
1942..	32,783,165	3,609,158	104,300,010	259,114,946	14,345,046	20,578,749	47,359,831	77,247,932	7,429,835
1943..	29,979,837	3,676,834	101,610,678	232,948,959	13,412,266	26,735,984	48,941,210	68,442,356	4,305,812
1944..	33,981,977	4,133,902	90,182,553	210,706,307	13,830,406	22,291,848	51,066,662	57,246,071	2,379,388
1945..	32,220,659	4,182,100	91,518,120	216,541,856	14,429,423	22,336,074	51,753,237	64,063,842	1,709,870
1946..	35,350,271	4,843,166	92,785,148	191,544,429	16,403,549	24,480,900	60,082,513	74,622,846	2,733,429
1947..	34,255,560	5,812,943	92,785,148	249,797,671	18,236,763	32,594,016	67,432,270	116,772,621	4,816,496
1948 <sup>1</sup> ..	56,155,799	7,339,998	147,081,732	286,658,445	26,767,711	34,421,180	92,623,314	147,317,853	7,814,183

<sup>1</sup> Subject to revision.

## 7.—Detailed Mineral Production, by Provinces, 1947

NOTE.—Quantities and values of minerals produced during 1947 in Yukon were—gold, 47,745 fine oz., \$1,671,075; silver, 372,051 fine oz., \$267,877; lead, 1,145,256 lb., \$156,556; total \$2,095,503; and in the Northwest Territories—gold, 62,517 fine oz., \$2,188,095; silver, 45,355 fine oz., \$32,655; petroleum, 227,474 bbl., \$500,238; total \$2,720,988. Data for pitchblende and magnesium are not released for publication. For Canadian totals of individual minerals, see Table 3. The ton referred to is the short ton of 2,000 lb.

Mineral	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
<b>Metallies</b>								
Antimony.....lb.	—	—	—	—	—	—	—	1,150,463
\$	—	—	—	—	—	—	—	384,255
Arsenic.....lb.	—	—	787,736	—	—	—	—	—
\$	—	—	49,348	—	—	—	—	—
Barium.....lb.	—	—	—	568	—	—	—	—
\$	—	—	—	1,278	—	—	—	—
Bismuth.....lb.	—	—	15	—	—	—	—	284,357
\$	—	—	30	—	—	—	—	560,183
Cadmium.....lb.	—	—	—	—	75,030	97,866	—	545,638
\$	—	—	—	—	129,052	168,330	—	938,497
Calcium.....lb.	—	—	—	602,665	—	—	—	—
\$	—	—	—	642,607	—	—	—	—
Chromite.....ton	—	—	2,162	—	—	—	—	—
\$	—	—	42,159	—	—	—	—	—
Cobalt.....lb.	—	—	—	572,673	—	—	—	—
\$	—	—	—	875,644	—	—	—	—
Copper.....lb.	—	—	85,121,428	227,867,613	30,631,768	66,301,926	—	41,800,358
\$	—	—	17,356,259	46,018,544	6,245,817	13,518,963	—	8,402,305
Gold.....oz.	1,271	—	598,127	1,944,819	72,906	93,747	78	249,011
\$	44,485	—	20,934,445	68,068,665	2,551,710	3,281,145	2,730	8,715,355
Iron ore.....ton	—	—	—	1,919,366	—	—	—	—
\$	—	—	—	9,313,201	—	—	—	—
Lead.....lb.	—	—	8,175,577	282,765	—	—	—	313,733,089
\$	—	—	1,117,601	38,654	—	—	—	42,887,313
Manganese ore.....ton	—	225	—	—	—	—	—	—
\$	—	7,875	—	—	—	—	—	—
Molybdenite.....lb.	—	—	759,795	—	—	—	—	—
\$	—	—	309,048	—	—	—	—	—
Nickel.....lb.	—	—	—	237,251,496	—	—	—	—
\$	—	—	—	70,650,764	—	—	—	—
Palladium, rhodium, etc.....fine oz.	—	—	—	110,332	—	—	—	—
\$	—	—	—	4,387,740	—	—	—	—
Platinum.....fine oz.	—	—	—	94,570	—	—	—	—
\$	—	—	—	5,582,467	—	—	—	—
Selenium.....lb.	—	—	181,573	146,406	33,653	139,458	—	—
\$	—	—	339,542	273,779	62,931	260,786	—	—
Silver.....fine oz.	97	—	2,134,189	2,342,032	424,365	1,282,546	16	5,903,367
\$	70	—	1,536,616	1,686,263	305,543	923,433	12	4,250,424
Tellurium.....lb.	—	—	—	6,169	588	2,437	—	—
\$	—	—	—	10,796	1,029	4,265	—	—
Tin.....lb.	—	—	—	—	—	—	—	714,198
\$	—	—	—	—	—	—	—	517,794
Titanium ore.....ton	—	—	7,104	—	—	—	—	—
\$	—	—	36,036	—	—	—	—	—
Tungsten (con- lb. centrates)..... \$	—	—	—	—	—	—	—	496,023
Zinc.....lb.	—	—	69,462,925	—	27,753,131	65,503,602	—	680,792
\$	—	—	7,800,686	—	3,116,677	7,356,054	—	253,006,168
\$	—	—	—	—	—	—	—	28,412,593
<b>Totals, Metallies. \$</b>	<b>44,555</b>	<b>7,875</b>	<b>49,521,770</b>	<b>207,550,402</b>	<b>12,412,759</b>	<b>25,512,976</b>	<b>2,742</b>	<b>95,749,541</b>
<b>Fuels</b>								
Coal.....ton	4,118,196	345,194	—	—	—	1,571,147	8,070,430	1,763,699
\$	27,175,251	2,301,511	—	—	—	2,928,812	36,439,158	8,630,285
Natural gas.....M cu. ft.	—	489,810	—	7,785,921	—	274,193	44,106,643	—
\$	—	279,790	—	5,334,991	—	68,891	7,745,686	—
Peat.....ton	—	—	—	95	—	—	—	—
\$	—	—	—	950	—	—	—	—
Petroleum..... bbl.	—	23,129	—	131,295	—	540,117	6,770,477	—
crude..... \$	—	32,381	—	350,000	—	614,156	18,078,907	—
<b>Totals, Fuels. \$</b>	<b>27,175,251</b>	<b>2,613,682</b>	<b>—</b>	<b>5,685,941</b>	<b>—</b>	<b>3,611,859</b>	<b>62,263,951</b>	<b>8,630,285</b>

## 7.—Detailed Mineral Production, by Provinces, 1947—concluded

Mineral	Nova Scotia	New Brun- swick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia
<b>Non-Metallies (Excluding Fuels)</b>								
Asbestos.....ton	—	—	661,821	—	—	—	—	—
\$	—	—	33,005,748	—	—	—	—	—
Barite.....ton	125,760	—	—	40	—	—	—	2,875
\$	1,353,705	—	—	398	—	—	—	26,650
Diatomite.....ton	44	—	—	—	—	—	—	59
\$	1,205	—	—	—	—	—	—	1,472
Feldspar.....ton	—	—	29,146	6,958	—	—	—	—
\$	—	—	320,964	60,396	—	—	—	—
Fluorspar.....ton	—	—	—	\$7,186	—	—	—	—
\$	—	—	—	209,886	—	—	—	—
Garnet rock.....ton	—	—	—	1	—	—	—	—
\$	—	—	—	300	—	—	—	—
Graphite.....ton	—	—	—	2,398	—	—	—	—
\$	—	—	—	207,364	—	—	—	—
Grindstones.....ton	—	335	—	—	—	—	—	—
\$	—	21,475	—	—	—	—	—	—
Gypsum.....ton	2,137,704	65,939	—	155,249	79,356	—	—	58,736
\$	2,303,275	711,535	—	671,548	525,197	—	—	523,298
Iron oxides.....ton	—	—	13,360	—	—	—	—	58
\$	—	—	257,621	—	—	—	—	701
Magnesian dolo- mite and brucite. \$	—	—	1,238,948	—	—	—	—	—
Mica.....lb.	—	—	3,272,293	3,238,462	—	—	—	1,808,000
\$	—	—	120,712	55,951	—	—	—	24,240
Mineral water...gal.	—	—	195,452	3,500	—	—	—	—
\$	—	—	116,840	600	—	—	—	—
Nepheline syenite ton	—	—	—	66,995	—	—	—	—
\$	—	—	—	341,635	—	—	—	—
Peat moss.....lb.	—	5,054,700	42,584,930	16,499,450	3,690,870	—	—	92,208,046
\$	—	60,943	383,795	170,443	76,291	—	—	1,588,349
Quartz.....ton	9,146	—	226,050	1,442,341	—	124,322	—	34,569
\$	55,393	—	638,521	949,210	—	43,513	—	109,975
Salt.....ton	40,107	—	—	633,766	24,974	—	29,698	—
\$	416,332	—	—	3,132,165	449,608	—	438,825	—
Silica brick.....M	1,983	—	—	1,111	—	—	—	—
\$	181,841	—	—	12,187	—	—	—	—
Soapstone and ton	—	—	13,279	—	—	—	—	—
talc.....\$	—	—	123,467	—	—	—	—	—
Sodium sulphate..ton	—	—	—	—	—	163,290	—	—
\$	—	—	—	—	—	1,793,043	—	—
Sodium carbonate ton	—	—	—	—	—	—	—	163
\$	—	—	—	—	—	—	—	1,793
Sulphur.....ton	—	—	48,688	15,931	—	—	—	157,162
\$	—	—	187,112	159,310	—	—	—	1,476,445
Talc.....ton	—	—	—	13,430	—	—	—	—
\$	—	—	—	142,910	—	—	—	—
<b>Totals, Non-Metallies..... \$</b>	<b>4,311,751</b>	<b>793,953</b>	<b>36,393,728</b>	<b>6,114,273</b>	<b>1,051,096</b>	<b>1,836,556</b>	<b>438,825</b>	<b>3,752,923</b>
<b>Clay Products and Other Structural Materials</b>								
Clay products, brick, tile, etc... \$	752,126	381,184	4,257,423	5,289,528	392,518	495,016	1,771,250	1,147,144
Cement.....bbl.	—	—	5,453,407	3,529,438	1,352,109	—	737,551	863,740
\$	—	—	9,351,477	6,219,993	3,009,157	—	1,491,510	1,896,772
Lime.....ton	—	20,938	349,038	490,681	40,397	—	25,733	50,626
\$	—	295,178	2,903,491	3,996,494	460,717	—	235,509	651,118
Sand and gravel..ton	2,966,680	3,464,347	16,537,303	20,230,499	1,765,976	2,131,705	2,058,142	7,634,917
\$	1,363,363	1,278,376	4,877,339	9,034,131	549,640	1,137,609	1,170,883	3,703,090
Stone.....ton	379,622	227,419	4,266,956	4,844,647	119,763	—	13,883	1,037,098
\$	608,514	442,695	7,846,407	5,906,909	360,876	—	57,600	1,241,748
<b>Totals, Clay Products and Other Structural Materials..... \$</b>	<b>2,724,003</b>	<b>2,397,433</b>	<b>29,236,137</b>	<b>30,447,055</b>	<b>4,772,908</b>	<b>1,632,625</b>	<b>4,726,752</b>	<b>8,639,872</b>
<b>Grand Totals.. \$</b>	<b>34,255,560</b>	<b>5,812,943</b>	<b>115,151,635</b>	<b>249,797,671</b>	<b>18,236,763</b>	<b>32,594,016</b>	<b>67,432,270</b>	<b>116,772,621</b>

1 Includes magnesium metal.

### Subsection 3.—Production of Metallic Minerals

The metals of chief importance in Canada are copper, gold, iron, lead, nickel, those of the platinum group, silver and zinc. These metals are dealt with individually in the following paragraphs. In addition, there are a number of metals produced in minor quantities, principally as by-products in the treatment of metalliferous ores (see Tables 3 and 7).

**Copper.**—About one-half of Canada's copper comes from the nickel-copper mines in the Sudbury district of Ontario. At Copper Cliff the International Nickel Company of Canada, Limited, produces converter copper which is further treated in the Company's refinery at that point, and at Falconbridge the Falconbridge Nickel Mines, Limited, produces nickel-copper matte which is exported to Norway for refining. Output of copper in this area in 1948 was 118,795 tons, including blister copper and the recoverable copper contained in matte or other products. In 1947 the corresponding output figure was 113,930 tons.

Mines in northern Quebec in 1948 accounted for 20 p.c. of Canada's copper production. These ores are treated at the Noranda smelter to produce copper anodes which are shipped to the Canadian Copper Refiners, Limited, at Montreal East for refining. Production of copper by operators in this district amounted to 48,331 tons in 1948 compared with 42,561 tons in 1947. Noranda, Normetal, Waite-Amulet and Amulet Dufault were the principal producing mines. The East Sullivan mill came into production in December, 1948, and construction work at the Quemont was then well advanced.

The Flin Flon-Sheritt Gordon area in northern Manitoba, and extending over the border into Saskatchewan, produced 50,882 tons of copper in 1948 compared with 48,467 tons in the previous year. Ores from the Flin Flon mine of Hudson Bay Mining and Smelting Company, Limited, and from the Sheritt-Gordon Mines, Limited, at Sherittton are treated at the Flin Flon smelter, and the blister copper which is recovered is shipped to Montreal East for refining. The Cuprus Mines commenced shipments to the Flin Flon smelter in October, 1948.

Mines in British Columbia, which account annually for about 9 p.c. of Canada's copper, produced 21,855 tons in 1948 as against 20,900 tons in 1947. The Britannia Mining and Smelting Company, Limited, and the Granby Consolidated Mining, Smelting and Power, Limited, were the major producers, with smaller contributions being made by Hedley Mascot, Kelowna and Vananda. Concentrates from these mines were exported to the United States. The Consolidated Mining and Smelting Company of Canada, Limited, exported some copper-bearing matte to the United States in 1948.

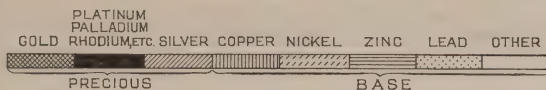
While the total tonnage of copper production in 1948 was greater than in 1947, it was lower than in any of the years from 1937 to 1944 inclusive. The record output was in 1940 at 327,797 tons. The 1948 value of output at \$107,000,000 was, of course, the greatest on record. World prices for copper were the highest since 1918, the yearly average for New York quotations, expressed in Canadian funds, being 22·35 cents compared with 20·39 cents in 1947. During the war years when record tonnages were produced, the controlled prices were from 10 to 12 cents per lb.

Output of refined copper amounted to 219,000 tons in 1948 compared with 202,500 tons in 1947. Consumption of the refined metal in Canada totalled 107,000 tons, and exports amounted to 116,169 tons. Shipments to the United Kingdom aggregated 63,494 tons for the year and to the United States 18,086 tons.



# PRODUCTION OF METALLIC MINERALS

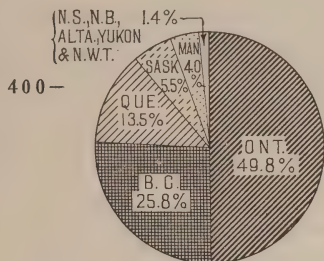
1926 - 48



MILLION

500 -

## PERCENTAGE DISTRIBUTION OF PRODUCTION OF METALLIC MINERALS BY PROVINCES



400 -

300 -

200 -

100 -

0

1926

1930

1935

1940

1945

1948

**8.—Copper Produced, by Provinces, with Total Values, 1939-48**

NOTE.—Figures for the years 1886-1910, inclusive, will be found at p. 272 of the 1916-17 Year Book; for the years 1911-28 at p. 335 of the 1939 edition; and for 1929-38 at p. 331 of the 1946 edition.

Year	Quebec	Ontario	Manitoba	Saskatchewan	British Columbia	Totals	
						Quantity	Value
	lb.	lb.	lb.	lb.	lb.	lb.	\$
1939.....	117,238,897	328,429,665	70,458,890	18,133,149	73,253,408	608,825,570 <sup>1</sup>	60,934,859 <sup>1</sup>
1940.....	134,166,955	347,931,013	75,267,937	20,484,954	77,742,582	655,593,441	65,773,061
1941.....	143,783,978	333,829,767	67,018,563	32,324,512	66,327,166	643,316,713 <sup>1</sup>	64,407,497 <sup>1</sup>
1942.....	140,911,876	308,282,414	47,595,586	56,781,466	50,015,521	603,661,826 <sup>1</sup>	60,417,372 <sup>1</sup>
1943.....	131,163,776	277,840,560	38,014,872	85,948,719	42,222,205	575,190,132	67,170,601
1944.....	108,055,172	285,307,278	43,878,639	73,514,499	36,302,628	547,070,118 <sup>1</sup>	65,257,172 <sup>1</sup>
1945.....	102,685,069	239,500,875	41,126,155	65,900,701	25,751,252	474,914,052	59,322,261
1946.....	69,797,697	179,424,639	38,501,047	62,712,954	17,500,538	367,936,875	46,632,093
1947.....	85,121,428	227,867,613	30,631,768	66,301,926	41,800,358	451,723,093	91,541,888
1948.....	96,697,800 <sup>2</sup>	237,589,545 <sup>2</sup>	38,806,000 <sup>2</sup>	62,957,000 <sup>2</sup>	43,709,411 <sup>2</sup>	479,759,756 <sup>2</sup>	107,111,669 <sup>2</sup>

<sup>1</sup> Includes 1,269,179 lb. valued at \$128,086 produced in Nova Scotia and 42,382 lb. valued at \$4,277 produced in N.W.T. in 1939; 32,727 lb. valued at \$3,301 produced in N.W.T. in 1941; 74,963 lb. valued at \$7,561 in 1942, and 11,902 lb. valued at \$1,428 in 1944.

<sup>2</sup> Subject to revision.

**Gold.**—Gold production increased in practically every mining area in 1948 and the total of 3,495,400 fine oz. was 14 p.c. above that of the previous year. The Emergency Gold Mining Assistance Act, 1948, was of definite help to a number of marginal mines in their battle against inflated costs. The success of the industry's experiment in bringing displaced persons from Europe was of great assistance in easing the critical labour shortage. However, the industry is still operating far below its potential. The 1948 output was exceeded in each of the years from 1936 to 1943 inclusive, but it was 35 p.c. below the record of 5,345,000 fine oz. attained in 1941.

In Ontario, which accounts for almost 60 p.c. of total gold production, the output was 2,068,978 fine oz. or 6 p.c. more than in 1947. In Quebec the gain was 28 p.c. to 765,834 fine oz., in Manitoba 50 p.c. to 109,354 fine oz., in British Columbia 24 p.c. to 308,794 fine oz., and in the Northwest Territories 58 p.c. to 98,553 fine oz.

Recoveries of gold from base metal mines in 1948 amounted to 361,000 fine oz., an increase of more than 70 p.c. over the corresponding figure for 1947. Bullion from lode and placer mines increased only about 10 p.c. to 3,134,000 fine oz.

Gold is produced in Nova Scotia, at points across the Canadian Shield from Quebec to the Northwest Territories, and in the Cordilleran Region of British Columbia and Yukon. Except for comparatively small amounts obtained from alluvial workings in Yukon, British Columbia, Saskatchewan and Alberta, gold production is derived from lode mining either of auriferous quartz or of other metallic ores such as copper, nickel and zinc that carry varying amounts of gold. The principal producing districts are: western Quebec; the adjacent districts of Porcupine and Kirkland Lake in Ontario, with other smaller camps scattered across northern Ontario to the western boundary; the Rice Lake and Gods Lake areas in eastern Manitoba and the Flin Flon district on the Manitoba-Saskatchewan boundary; the Bridge River district and the Zeballos camp in British Columbia. Developments in the Yellowknife district in the Northwest Territories have resulted in several producing mines. In 1948 the three leading gold producers in Canada were the Hollinger Mine, the McIntyre in the Porcupine district and Kerr Addison mine in the Larder Lake area. About 85 p.c. of the total production came from auriferous quartz mines; about 12 p.c. from mines in which gold was associated with

ores of copper, nickel, zinc, etc.; and about 3 p.c. from alluvial operations. The auriferous quartz mining industry suffered severely from the shortage of labour and of essential supplies in the later war years; the number of producing mines decreased from 232 in 1939 to 104 in 1947 and their employees dropped from 29,001 to 22,906 during the same period.

### 9.—Quantities of Gold Produced, by Provinces, 1939-48

NOTE.—Figures for the years 1862-1910, inclusive, will be found at pp. 268-269 of the 1916-17 Year Book; for the years 1911-28 at p. 336 of the 1939 edition; and for 1929-38 at p. 332 of the 1946 edition.

Year	Nova Scotia	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon	Total
	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine
1939..	29,943	953,377	3,086,076	180,875	77,120	359	626,970	139,659 <sup>1</sup>	5,094,379 <sup>1</sup>
1940..	22,219	1,019,175	3,261,688	152,295	102,925	215	617,011	135,617 <sup>1</sup>	5,311,145 <sup>1</sup>
1941..	19,170	1,089,339	3,194,308	150,553	138,015	215	608,203	145,376 <sup>1</sup>	5,345,179 <sup>1</sup>
1942..	12,989	1,092,388	2,763,819	136,226	178,871	34	474,339	182,640 <sup>1</sup>	4,841,306 <sup>1</sup>
1943..	4,129	922,533	2,117,215	91,775	174,090	21	241,346	100,192 <sup>1</sup>	3,651,301 <sup>1</sup>
1944..	5,840	746,784	1,731,836	74,168	122,782	51	196,857	44,593 <sup>1</sup>	2,922,911 <sup>1</sup>
1945..	3,291	661,608	1,625,368	70,655	108,568	7	186,854	40,376 <sup>1</sup>	2,696,727 <sup>1</sup>
1946..	4,321	618,339	1,813,333	79,402	112,101	110	136,242	68,706 <sup>1</sup>	2,832,554 <sup>1</sup>
1947..	1,271	598,127	1,944,819	72,906	93,747	78	249,011	110,262 <sup>1</sup>	3,070,221 <sup>1</sup>
1948 <sup>2</sup> ..	192	765,834	2,068,978	109,354	90,003	35	308,794	152,213 <sup>1</sup>	3,495,403 <sup>1</sup>

<sup>1</sup> Includes production of the Northwest Territories amounting to 51,914 oz. fine in 1939; 55,159 oz. fine in 1940; 77,354 oz. fine in 1941; 99,394 oz. fine in 1942; 59,032 oz. fine in 1943; 20,775 oz. fine in 1944; 8,655 oz. fine in 1945; 23,420 oz. fine in 1946; 62,517 oz. fine in 1947 and 98,553 oz. fine in 1948. <sup>2</sup> 1948 figures subject to revision.

### 10.—Values of Gold Produced, by Provinces, 1939-48

NOTE.—Values are calculated at world prices in Canadian funds. Figures for the years 1862-1910, inclusive, will be found at p. 270 of the 1916-17 Year Book; for the years 1911-28 at p. 337 of the 1939 edition; and for 1929-38 at p. 332 of the 1946 edition.

Year	Nova Scotia	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon	Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$
1939..	1,082,170	34,455,998	111,533,873	6,537,003	2,787,194	12,974	22,659,323	5,047,416 <sup>1</sup>	184,115,951 <sup>1</sup>
1940..	855,432	39,238,238	125,574,988	5,863,357	3,962,613	8,277	23,754,924	5,221,254 <sup>1</sup>	204,479,083 <sup>1</sup>
1941..	738,045	41,939,552	122,980,858	5,796,290	5,313,578	8,277	23,415,816	5,596,976 <sup>1</sup>	205,789,392 <sup>1</sup>
1942..	500,076	42,056,938	106,407,032	5,244,701	6,886,533	1,309	18,262,052	7,031,640 <sup>1</sup>	186,390,281 <sup>1</sup>
1943..	158,967	35,517,521	81,512,777	3,533,337	6,702,465	808	9,291,821	3,857,392 <sup>1</sup>	140,575,088 <sup>1</sup>
1944..	224,840	28,751,184	66,675,686	2,855,468	4,727,107	1,963	7,578,994	1,716,831 <sup>1</sup>	112,532,073 <sup>1</sup>
1945..	126,704	25,471,908	62,576,668	2,720,218	4,179,868	269	7,193,879	1,554,476 <sup>1</sup>	103,823,990 <sup>1</sup>
1946..	158,797	22,723,958	66,639,988	2,918,024	4,119,712	4,042	5,006,893	2,524,945 <sup>1</sup>	104,096,359 <sup>1</sup>
1947..	44,485	20,934,445	68,068,665	2,551,710	3,281,145	2,730	8,715,385	3,859,170 <sup>1</sup>	107,457,735 <sup>1</sup>
1948 <sup>2</sup> ..	6,720	26,804,190	72,414,230	3,827,390	3,150,105	1,225	10,807,790	5,327,455 <sup>1</sup>	122,339,105 <sup>1</sup>

<sup>1</sup> Includes value of production of the Northwest Territories amounting to \$1,876,224 in 1939; \$2,123,621 in 1940; \$2,977,359 in 1941; \$3,826,669 in 1942; \$2,272,732 in 1943; \$799,838 in 1944; \$333,218 in 1945; \$860,685 in 1946; \$2,188,095 in 1947 and \$3,449,355 in 1948. <sup>2</sup> 1948 figures subject to revision.

**Iron.**—Bog iron ore was first mined and smelted in the Province of Quebec early in the eighteenth century and from that time until 1883 the industry was carried on almost exclusively at Three Rivers. Other furnaces, using local ore, were operated at Radnor Forges and Drummondville, the last to shut down being the Drummondville furnace in 1911.

Deposits of iron ore in Canada are many and widespread, but because of the availability of low-cost, higher-grade ores in the Lake Superior ranges of the United States and the Wabana deposit in Newfoundland, no iron ore from domestic sources was produced in Canada from 1924 to 1939, inclusive.



The 1937 development work began at the New Helen mine of the Algoma Ore Properties, Limited, in the Michipicoten area of Ontario and the first sinter was produced in July, 1939. The high-grade deposits being worked by the Steep Rock Iron Mines, Limited, 135 miles west of Port Arthur, Ont., and the more recent discoveries of large deposits of iron ore in the Quebec-Labrador Boundary region have greatly raised the potentialities of Canada as a producer of iron ore. In 1948 there were 1,354,069 tons of iron-ore produced, most of which came from Ontario.

A special article on "The Iron-Ore Resources of the Quebec-Labrador Region" appears at pp. 505-512 of this volume.

### 11.—Iron-Ore Shipments and Production of Pig-Iron, Ferro-Alloys and Steel Ingots and Castings, 1939-48

NOTE.—Figures for the years 1886-1910, inclusive, will be found at p. 373 of the 1936 Year Book; for the years 1911-28 at p. 340 of the 1939 edition; and for 1929-38 at p. 333 of the 1946 edition.

Year	Iron-Ore Shipments from Canadian Mines	Production of Pig-Iron			Production of Ferro-Alloys	Production of Steel Ingots and Castings
		Nova Scotia	Ontario	Canada		
	short tons	short tons	short tons	short tons	short tons	short tons
1939.....	123,598	290,232	556,186	846,418	85,540	1,551,054
1940.....	414,603	441,741	867,358	1,309,099	149,394	2,253,769
1941.....	516,037	421,296	1,106,757	1,528,053	204,354	2,712,151
1942.....	545,119	467,951	1,507,063	1,975,014	209,017	2,109,851
1943.....	641,294	345,722	1,412,547	1,758,269	197,094	3,004,124
1944.....	553,252	395,802	1,456,826	1,852,628	182,428	3,024,410
1945.....	1,135,444	374,302	1,403,647	1,777,949	178,214	2,877,927
1946.....	1,549,523	317,180	1,089,072	1,406,252	137,822	2,327,283
1947.....	1,919,366	354,789	1,606,787	1,962,848 <sup>1</sup>	227,123	2,945,952
1948 <sup>2</sup> .....	1,354,069	438,430	1,682,479	2,120,909	250,659	3,201,656

<sup>1</sup> Includes production of 1,272 short tons in British Columbia.

<sup>2</sup> 1948 figures subject to revision.

**Lead.**—The output of lead in 1948 at 168,318 tons increased only 4 p.c. over the previous year. Here again the scale of mine operations was considerably below the wartime level, but advances in market prices for the metal raised the value of output to an all-time peak of \$60,700,000. At Dec. 31., 1948, the price of lead on the New York market was 21.5 cents per lb. In Canada during the war years the price ranged from 3.4 cents to 5 cents per lb.

About 97 p.c. of the Canadian output was from the province of British Columbia, and most of this in turn came from the great Sullivan mine of the Consolidated Mining and Smelting Company of Canada, Limited, at Kimberley. Smaller contributors included the Base Metals Mining Corporation, Highland Bell, Ainsmore Consolidated, Silbak Premier and Sheep Creek Zincton. Production in British Columbia for 1948 totalled 162,181 tons compared with 156,867 tons in 1947.

Recoveries by Quebec's lead producers, the New Calumet Mines, Limited, and the Golden Manitou Mines, Limited, were greater by almost 10 p.c. in 1948 at 4,485 tons. In Yukon, the output of 1,649 tons, mostly from United Keno Hill, was nearly three times that of the previous year. For values of lead produced by provinces in 1947 see Table 7, p. 524.

Output of new refined lead amounted to 160,000 tons in 1948, a slight decrease from the preceding year. All this refined metal was made at the Trail smelter of the Consolidated Mining and Smelting Company of Canada, Limited. The concentrates from Quebec's mines were exported to the United States and Belgium.



Consumption of refined lead in Canada continued at a high level. Users reported 1948 purchases at 62,000 tons, of which about 20,000 tons was for use in storage batteries, 15,000 tons for babbitts, solders, etc., 12,000 tons for covering wires and cables, 10,000 tons for pigments, and 5,000 tons for miscellaneous purposes.

Exports of refined lead during the year totalled 103,762 tons.

### 12.—Quantities and Values of Lead Produced from Canadian Ores, 1939-48

NOTE.—Figures for the years 1887-1910, inclusive, will be found at p. 367 of the 1929 Year Book; for 1911-28 at p. 341 of the 1939 edition; and for 1929-38 at p. 333 of the 1946 edition.

Year	Quantity	Value	Year	Quantity	Value
	lb.	\$		lb.	\$
1939.....	388,569,550	12,313,768	1944.....	304,582,198	13,706,199
1940.....	471,850,256	15,863,605	1945.....	346,994,472	17,349,723
1941.....	460,167,005	15,470,815	1946.....	353,973,776	23,893,230
1942.....	512,142,562	17,218,233	1947.....	323,336,687	44,200,124
1943.....	444,060,769	16,670,041	1948.....	336,636,058	60,729,144

**Nickel.**—Nickel production in 1948 totalled 128,870 tons, this being made up of refined nickel, the recoverable nickel in matte and sintered oxide exported, and the nickel in salts produced at smelters or refineries. This tonnage was 9 p.c. greater than the corresponding figure for 1947, but it was considerably below the record of 144,009 tons established in 1943.

Practically all this nickel—about 90 p.c. of the total world output, exclusive of the U.S.S.R.—comes from the Sudbury nickel-copper ores. The International Nickel Company of Canada, Limited, conducts smelting operations at Copper Cliff and Coniston, Ont., while the Falconbridge Nickel Mines, Limited, operates a smelter at its mine site a few miles east of the town of Sudbury. Matte from the former is refined at Port Colborne, Ont., or is exported to the Company's associated works in the United States and Great Britain. All the Falconbridge matte is exported to the Company's refinery in Norway. A relatively small amount of nickel oxide is recovered by the Deloro Smelting and Refining Company, Limited, Deloro, Ont., from the treatment of silver-cobalt-nickel-arsenic ores from the Cobalt district in northern Ontario. Nickel-bearing ores in the Lynn Lake area in northern Manitoba are now being developed by the Sherritt-Gordon Mines, Limited.

The value of nickel output in 1948 at \$85,600,000 was the greatest ever recorded. Early in August, 1948, the price for electrolytic nickel advanced to 40 cents per lb. at Port Colborne, from the former level of 35 cents.

The consumption of refined nickel by Canadian foundries amounts to about 2,000 tons annually.

### 13.—Quantities and Values of Nickel Produced, 1939-48

NOTE.—Figures for the years 1889-1910, inclusive, will be found at p. 368 of the 1929 Year Book; for 1911-28 at p. 342 of the 1939 edition; and for 1929-38 at p. 333 of the 1946 edition.

Year	Quantity	Value	Year	Quantity	Value
	lb.	\$		lb.	\$
1939.....	226,105,865	50,920,305	1944.....	274,598,629	69,204,152
1940.....	245,557,871	59,822,591	1945.....	245,130,983	61,982,133
1941.....	282,258,235	68,656,795	1946.....	192,124,537	45,385,155
1942.....	285,211,803	69,998,427	1947.....	237,251,496	70,650,764
1943.....	288,018,615	71,675,322	1948 <sup>1</sup> .....	257,741,704	85,615,175

<sup>1</sup> 1948 figures subject to revision.

**Metals of the Platinum Group.**—This group of metals includes palladium, rhodium, ruthenium, osmium and iridium, with platinum and iridium as the most important. These metals occur in the nickel-copper ore of the Sudbury district and are recovered in the tank residues from the nickel refinery at Port Colborne, Ont. The crude residues are sent to the refinery at Acton, England, for refining. The great increase in the output of nickel-copper ores has made Canada the leading producer of platinum since 1934, when it displaced Russia. The industrial uses of the platinum metals have expanded considerably in recent years, particularly in electrical and chemical equipment, jewellery and in medical and dental appliances. Canada produced 260,400 fine oz. of platinum metals for a total value of \$16,000,000, in 1948.

#### 14.—Quantities and Values of Platinum and Palladium Produced, 1939-48

NOTE.—Records of the platinum production in Canada go back to 1887 but, prior to 1921, the amounts were comparatively small and the basis of calculation was not comparable with that now used. Figures for the years 1921-38 will be found at p. 340 of the 1940 Year Book.

Year	Platinum		Palladium <sup>1</sup>		Year	Platinum		Palladium <sup>1</sup>	
	oz. fine	\$	oz. fine	\$		oz. fine	\$	oz. fine	\$
1939.....	148,902	5,222,589	135,402	4,199,622	1944....	157,523	6,064,635	42,929	1,960,085
1940.....	108,486	4,240,362	91,522	3,520,746	1945....	208,234	8,017,010	458,674	18,671,074
1941.....	124,317	4,750,153	97,432	3,396,304	1946....	121,771	7,672,791	117,566	5,162,801
1942.....	285,228	10,898,561	222,573	8,279,221	1947....	94,570	5,582,467	110,332	4,387,740
1943.....	219,713	8,458,951	126,004	5,233,068	1948....	116,578	10,200,575	143,822	5,975,194

<sup>1</sup> Includes also rhodium, ruthenium, osmium and iridium.

<sup>2</sup> 1948 figures subject to revision.

**Silver.**—Silver, a by-product of most gold and base-metal mines, increased 25 p.c. in quantity in 1948 to 15,600,000 fine oz., including silver bullion and silver contained in concentrates exported. Production of fine silver was about 12,000,000 fine oz. in 1948 and the consumption by Canadian users, other than for coinage, was 4,500,000 fine oz.

Silver mining is not a distinct industry in Canada as the silver-bearing minerals occur in association with other metals of economic value. Most of the metal is obtained from the treatment of base-metal ores although substantial amounts are recovered from gold-quartz ores and from alluvial gold deposits. For many years the famous camp at Cobalt, Ont., supplied the bulk of Canada's silver, but output from this area has been quite small in recent years. In 1948, approximately 42 p.c. of Canada's silver came from British Columbia, 21 p.c. from Ontario, 14 p.c. from Quebec, 5 p.c. from Manitoba, 9 p.c. from Saskatchewan and 9 p.c. from Yukon and the Northwest Territories.

#### 15.—Quantities and Values of Silver Produced, 1939-48

NOTE.—Figures for the years 1887-1910, inclusive, will be found at p. 361 of the 1933 Year Book; for the years 1911-28 at p. 344 of the 1939 edition; for 1929-38 at p. 334 of the 1946 edition.

Year	Quantity		Value	Year	Quantity		Value
	oz. fine	\$			oz. fine	\$	
1939.....	23,163,629	9,378,490	1944.....	13,627,109	5,859,656		
1940.....	23,833,752	9,116,172	1945.....	12,942,906	6,083,166		
1941.....	21,754,408	8,323,454	1946.....	12,544,100	10,493,139		
1942.....	20,695,101	8,726,296	1947.....	12,504,018	9,002,893		
1943.....	17,344,569	7,849,111	1948 <sup>1</sup> .....	15,642,149	11,731,613		

<sup>1</sup> 1948 figures subject to revision.

**16.—Quantities of Silver Produced, by Provinces, 1939-48**

NOTE.—Figures for the years 1887-1910, inclusive, will be found at p. 271 of the 1916-17 Year Book; for the years 1911-28 at p. 345 of the 1939 edition; for 1929-38 at p. 334 of the 1946 edition. The relatively small quantities of silver produced in Alberta are not shown in this table.

Year	Average price per fine oz. (Canadian funds)	Nova Scotia	Quebec	Ontario	Manitoba	Saskatchewan	British Columbia	Yukon	North-west Territories
	cts.	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine
1939....	40.49	173,877	1,167,444	4,689,422	1,028,485	1,141,600	10,648,031	3,830,864	483,874
1940....	38.25	725	1,340,450	5,563,101	1,033,512	1,691,540	11,885,556	2,259,343	59,505
1941....	38.26	673	1,657,082	4,977,476	966,105	2,047,164	11,233,788	856,772	15,327
1942....	42.17	446	1,655,042	4,452,787	821,824	2,664,132	10,596,204	482,133	22,531
1943....	45.84	144	2,212,115	2,671,320	587,279	2,812,624	8,995,488	52,348	13,250
1944....	43.00	188	2,500,681	3,143,275	569,873	1,735,773	5,631,572	32,066	13,677
1945....	47.00	112	2,149,570	3,185,369	533,883	1,426,457	5,620,323	25,158	2,033
1946....	83.65	146	1,916,453	2,485,215	528,017	1,498,496	6,078,419	31,230	6,112
1947....	72.00	97	2,134,189	2,342,032	424,365	1,282,546	5,903,367	372,051	45,355
1948 <sup>1</sup> ...	75.00	11	2,235,421	3,262,118	811,146	1,346,000	6,593,420	1,369,242	24,788

<sup>1</sup> 1948 figures subject to revision.

**Zinc.**—Zinc mines in British Columbia accounted for 58 p.c. of Canada's zinc production in 1948; the Flin Flon-Sheritt Gordon district in Manitoba and Saskatchewan contributed 22 p.c. and northern Quebec 20 p.c. Canada's output of 232,095 tons in 1948 compares with 207,863 tons in 1947 and with the record of 305,377 tons in 1943.

Production in British Columbia increased by 6 p.c. in 1948 to 134,038 tons. Most of this came from the Sullivan mine, but there were relatively small shipments from Ainsmore Consolidated, Base Metals Mining Corporation, Silbak Premier, Sheep Creek, Highland Bell, Britannia Mining and Smelting Company and Western Exploration. In Central Canada the Flin Flon and Sheritt Gordon mines produced 50,919 tons, or 10 p.c. more than in 1947, and in Quebec the mine shipments totalled 47,137 tons compared with 34,732 tons in the previous year. The Normetal, Waite-Amulet, Golden Manitou and New Calumet contributed to these latter totals, and practically all the concentrates from these properties were exported to the United States and Belgium. Some concentrates from the New Calumet Mines, Limited, were shipped to the smelter of the Consolidated Mining and Smelting Company, Limited, at Trail, B.C.

Output of refined zinc was 192,500 tons in 1948 and Canadian consumers used 46,000 tons in that year. Exports amounted to 144,887 tons, including 55,433 tons to the United Kingdom and 75,408 tons to the United States. For values of zinc production by provinces in 1947 see Table 7, p. 524.

**17.—Quantities and Values of Zinc Produced, 1939-48**

NOTE.—Figures for the years 1911-28 are given at p. 347 of the 1939 Year Book; for 1929-38 at p. 335 of the 1946 edition.

Year	Quantity <sup>1</sup>	Value	Average Price per lb.	Year	Quantity <sup>1</sup>	Value	Average Price per lb.
	lb.	\$	cts.		lb.	\$	cts.
1939.....	394,533,860	12,108,244	3.069	1944.....	550,823,353	23,685,405	4.300
1940.....	424,028,862	14,463,624	3.411	1945.....	517,213,604	33,308,556	6.440
1941.....	512,381,636	17,477,337	3.411	1946.....	470,620,360	36,755,450	7.810
1942.....	580,257,373	19,792,579	3.411	1947.....	415,725,826	46,686,010	11.230
1943.....	610,754,354	24,430,174	4.000	1948 <sup>2</sup> .....	464,189,141	64,661,547	13.930

<sup>1</sup> Estimated foreign smelter recoveries and refined zinc produced in Canada.

<sup>2</sup> 1948 figures

subject to revision.



### Subsection 4.—Production of Fuels

**Coal.**—In 1948 the value of coal production was greater than that of any other mineral except gold. It was slightly above copper in this regard and far above nickel, lead, zinc or asbestos. The value of coal production in 1948 was the greatest on record and second in tonnage, amounting to 18,449,689 tons worth \$106,684,008. Of the total tonnage 44 p.c. came from Alberta's mines, 35 p.c. from Nova Scotia, 10 p.c. from British Columbia, 8 p.c. from Saskatchewan and 3 p.c. from New Brunswick. There was also a small tonnage from Yukon. About 1,273,000 tons of coal were exported in 1948 and imports totalled 31,000,000 tons.

The fuel situation in Canada is somewhat anomalous as, in spite of the enormous resources of coal and oil, output is relatively small in comparison with domestic requirements. The Canadian coal areas are situated in the eastern and western provinces, while the areas of densest population and greatest industrial development, those of Ontario and Quebec, are more easily and economically supplied with coal from the nearer United States coalfields of Pennsylvania and Ohio. The coal produced in Nova Scotia, New Brunswick, British Columbia and Yukon is all classed as bituminous, while Alberta produces bituminous and sub-bituminous, and Saskatchewan and Manitoba lignite only.

### 18.—Coal Production, by Provinces, 1939-48

NOTE.—Figures for the years 1874-1910, inclusive, will be found at p. 419 of the 1911 Year Book; for the years 1911-28 at p. 348 of the 1939 edition; and for 1929-38 at p. 347 of the 1946 edition.

Year	Nova Scotia	New Brunswick	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon	Totals	
								Quantity	Value
	short tons	short tons	short tons	short tons	short tons	short tons	short tons	short tons	\$
1939....	7,051,176	468,421	1,138	960,000	5,519,208	1,692,755	—	15,692,698	48,676,990
1940....	7,848,921	547,064	1,697	1,097,517	6,203,839	1,867,846	—	17,566,884	54,675,844
1941....	7,387,762	523,344	1,246	1,322,763	6,969,962	2,020,844	—	18,225,921	58,059,630
1942....	7,204,852	435,203	1,265	1,301,116	7,754,053	2,168,541	—	18,865,030	62,897,581
1943....	6,103,085	372,873	999	1,665,972	7,676,726	2,039,402	—	17,859,057	62,877,549
1944....	5,745,671	345,123	—	1,372,766	7,428,708	2,134,231	—	17,026,499	70,433,169
1945....	5,112,615	361,184	—	1,532,995	7,800,151	1,699,768	—	16,506,713	67,588,402
1946....	5,452,868	370,655	—	1,523,489	8,826,311	1,638,424	—	17,811,747	75,820,159
1947....	4,118,196	345,194	—	1,571,147	8,070,430	1,763,899	—	15,868,866	77,474,954
1948....	6,430,991	522,136	—	1,589,172	8,123,255	1,780,334	3,801	18,449,689	106,684,008

**Coal Consumption.**—The sources of coal consumed in Canada in the calendar years 1939-48 are shown in Table 21 and detailed figures of coal made available for consumption in 1948 are given in Table 22; the difference between the totals of the two tables in the same year is accounted for by the fact that coal received may be held in bond at Canadian ports and not "cleared for consumption" until required, while coal received in previous years may be taken out of bond (cleared for consumption) in a later year. Normally, the coal made available for consumption is greater than the apparent domestic consumption, since coal is landed at Canadian ports and re-exported or ex-warehoused for ships' stores without being taken out of bond but, while remaining in bond at the port, it is available for domestic consumption if required.



**19.—Imports<sup>1</sup> of Anthracite, Bituminous and Lignite Coal into Canada, 1939-48**

NOTE.—Anthracite dust is included under anthracite coal. Figures for the years 1868-1910, inclusive, will be found at p. 420 of the 1911 Year Book; for the years 1911-28 at p. 349 of the 1939 edition; and for 1929-38 at p. 348 of the 1946 edition.

Year	Anthracite		Bituminous <sup>2</sup>		Lignite		Totals <sup>2</sup>	
	short tons	\$	short tons	\$	short tons	\$	short tons	\$
1939.....	4,288,461	21,938,333	10,706,786	19,628,410	3,398	11,942	14,998,645	41,578,685
1940.....	3,944,255	23,123,417	13,479,986	26,499,046	2,493	7,669	17,426,734	49,630,132
1941.....	3,853,010	24,026,095	16,534,449	37,558,900	934	3,046	20,388,393	61,588,041
1942.....	4,911,625	31,506,629	20,025,483	50,343,442	239	1,148	24,937,347	81,551,219
1943.....	4,480,285	30,918,555	23,628,300	70,325,413	337	1,487	28,108,922	101,245,455
1944.....	4,452,991	33,417,990	24,270,692	79,718,988	171	1,038	28,723,854	113,138,016
1945.....	3,412,730	27,568,369	21,648,350	74,861,376	467	2,229	25,061,556 <sup>3</sup>	102,431,974 <sup>3</sup>
1946.....	4,631,387	41,987,460	21,475,040	78,366,184	172	776	26,106,599 <sup>3</sup>	120,354,420 <sup>3</sup>
1947.....	4,281,682	41,012,759	24,610,045	97,935,771	203	1,255	28,891,930	138,949,785 <sup>3</sup>
1948.....	5,244,837	56,380,098	25,614,443	129,929,580	14,632	78,073	30,873,912	186,387,751 <sup>3</sup>

<sup>1</sup> Entered for consumption. <sup>2</sup> Includes coal ex-warehoused for ships' stores. <sup>3</sup> Canada also imported 142,435 short tons of briquettes of coal or coke valued at \$1,114,617 in 1945, 182,231 short tons valued at \$1,449,221 in 1946, 245,678 short tons valued at \$2,233,654 in 1947 and 308,753 short tons valued at \$3,204,839 in 1948.

**20.—Exports of Coal Produced in Canada, 1937-48**

NOTE.—Figures for the years 1868-1910, inclusive, will be found at p. 421 of the 1911 Year Book; for the years 1911-28 at p. 349 of the 1939 edition; and for 1929-36 at p. 348 of the 1946 edition.

Year	Quantity		Value	Year	Quantity		Value
	short tons	\$			short tons	\$	
1937.....	355,268	1,441,879	1943.....	1,110,101	5,428,362		
1938.....	353,181	1,540,990	1944.....	1,010,240	5,984,827		
1939.....	376,203	1,666,934	1945.....	840,708	5,303,543		
1940.....	504,898	2,361,551	1946.....	862,489	5,946,224		
1941.....	531,449	2,596,626	1947.....	714,549	5,440,788		
1942.....	815,585	4,278,345	1948.....	1,273,262	11,555,985		

**21.—Consumption of Canadian and Imported Coal in Canada, by Quantities and Percentages, 1939-48**

NOTE.—Figures for the years 1886-1910, inclusive, will be found at p. 354 of the 1921 Year Book; for the years 1911-28 at p. 350 of the 1939 edition; and for 1929-38 at p. 349 of the 1946 edition.

Year	Canadian Coal <sup>1</sup>		Imported Coal "Entered for Consumption"				Grand Total	Per Capita <sup>3</sup>
			From U.S.A.	From United Kingdom	Total <sup>2</sup>			
	short tons	p.c.	short tons	short tons	short tons	p.c.	short tons	short tons
1939.....	14,902,915	50.6	12,923,708	1,099,419	14,564,679	49.4	29,467,594	2.615
1940.....	16,666,234	49.5	15,509,779	1,514,458	17,036,090	50.5	33,702,324	2.961
1941.....	17,227,151	46.2	19,332,479	693,902	20,026,082	53.8	37,253,233	3.237
1942.....	17,725,761	42.0	24,140,841	388,948	24,529,361	58.0	42,255,122	3.626
1943.....	16,321,006	37.1	27,303,776	391,475	27,695,098	62.9	44,016,104	3.727
1944.....	15,660,808	35.7	27,948,008	218,511	28,166,201	64.3	43,827,009	3.650
1945.....	15,227,819	38.3	24,505,241	28,388	24,521,528	61.7	39,749,347	3.279
1946.....	16,502,508	39.0	25,639,541	101,580	25,740,704	61.0	42,243,212	3.432
1947.....	14,673,967	34.0	28,410,149	52,777	28,462,242	66.0	43,136,209	3.428
1948 <sup>4</sup> .....	16,928,028	36.0	30,295,841	162,550	30,454,917	64.0	47,382,945	3.678

<sup>1</sup> The sum of Canadian coal mines' sales, colliery consumption, coal supplied to employees and coal used in making coke, etc., less the tonnage of coal exported. <sup>2</sup> Includes small tonnages from countries other than the United Kingdom and the United States. Deductions have been made from this column to take account of foreign coal re-exported from Canada and bituminous coal ex-warehoused for ships' stores.

<sup>3</sup> Figures based on estimates of population given at p. 155.

<sup>4</sup> 1948 figures subject to revision.

## 22.—Coal Output, Exports, Imports and Coal made available for Consumption in Canada, 1948

NOTE.—For details by provinces, see the Annual Report, "Coal Statistics for Canada".

Grade	Canadian Coal		Imported Coal <sup>1</sup>	Coal Made Available for Consumption <sup>2</sup>
	Output	Exported		
	short tons	short tons	short tons	short tons
Anthracite.....	—	—	5,142,529	5,142,529
Bituminous.....	13,671,720	1,262,947	25,748,896	38,157,669
Sub-bituminous.....	3,188,797	—	—	3,188,797
Lignite.....	1,589,172	10,315	3	1,578,857
<b>Totals.....</b>	<b>18,449,689</b>	<b>1,273,262</b>	<b>30,891,425</b>	<b>48,067,852</b>

<sup>1</sup> Coal reaching Canadian ports whether or not it is cleared from customs.  
for the months of January, February and March.

<sup>2</sup> Briquettes included  
<sup>3</sup> Lignite coal included with bituminous.

**Petroleum.**—A brief account of the development of the petroleum industry in Canada was published as a special feature in *Canada 1949*, reprints of which are available (see list at front of this edition). The development of oil production in the Northwest Territories is covered in the 1943-44 edition of the Year Book, pp. 316-317.

In 1948 Canada produced 12,098,000 bbl. of crude oil or slightly more than 12 p.c. of the amount consumed. The remainder, consisting of 77,633,000 bbl. of crude oil and 12,039,000 bbl. of petroleum products, was imported. Canadian consumption of petroleum and products is about 250 gal. per capita per year.

Canadian oil resources are very unevenly distributed. Almost all the proven reserves are in Western Canada east of the mountains. In 1948, of a total production of 12,098,000 bbl. of crude petroleum, 10,660,000 bbl., or 88 p.c., came from Alberta wells, 866,000 bbl., or 7 p.c. from Saskatchewan wells mainly from the Lloydminster field which straddles the Alberta-Saskatchewan border, and the remainder from the Northwest Territories, Ontario and New Brunswick.

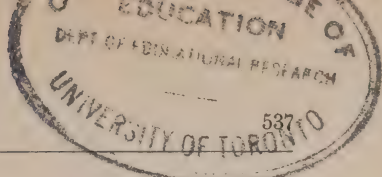
## 23.—Quantities and Values of Crude Petroleum Produced, by Provinces, 1942-48

NOTE.—Figures for the years 1936-41 will be found at p. 476 of the 1948-49 edition of the Year Book.

Year	New Brunswick	Ontario	Alberta	Saskatchewan	Northwest Territories	Canada
QUANTITIES						
	bbl.	bbl.	bbl.	bbl.	bbl.	bbl.
1942.....	28,089	143,845	10,117,073	—	75,789	10,364,796
1943.....	24,530	132,492	9,601,530	—	293,750	10,052,302
1944.....	23,296	125,067	8,727,366	—	1,223,675	10,099,404
1945.....	30,140	113,325	7,979,786	14,274	345,171	8,482,796
1946.....	28,584	123,082	7,137,921	118,686	177,282	7,585,555
1947.....	23,120 <sup>+</sup>	131,295 <sup>+</sup>	6,770,477 <sup>+</sup>	540,117 <sup>+</sup>	227,474 <sup>+</sup>	7,692,492 <sup>+</sup>
1948 <sup>2</sup> .....	20,823	174,290	10,660,000 <sup>1</sup>	865,715	377,338	12,098,166
VALUES						
	\$	\$	\$	\$	\$	\$
1942.....	39,467	306,242	15,514,665	—	108,477	15,968,851
1943.....	34,342	311,356	15,724,518	—	400,201	16,470,417
1944.....	32,832	296,420	14,468,061	—	632,587	15,429,900
1945.....	42,413	268,478	13,169,692	15,362	136,303	13,632,248
1946.....	40,018	291,719	14,347,933	135,990	173,392	14,689,052
1947.....	32,351 <sup>+</sup>	350,000 <sup>+</sup>	18,078,907 <sup>+</sup>	614,156 <sup>+</sup>	500,238 <sup>+</sup>	19,575,682 <sup>+</sup>
1948 <sup>2</sup> .....	31,235	463,611	34,538,400	995,570	830,143	36,853,959

<sup>1</sup> These figures are compiled on a somewhat different basis from the figure of the Alberta Government given on p. 538.

<sup>2</sup> 1948 figures subject to revision.



Petroleum has become of such vital importance to industry that an intense search for oil has been carried on during and since the War not only in the Prairie Provinces, where several new oil fields have been discovered, but also in Ontario, Manitoba and British Columbia.

Provincial Ministers of Mines held a conference in September, 1948, and a Continuing Interprovincial Petroleum and Natural Gas Committee was established, with representation from each of eight provinces and from the oil industry. The function of the Committee is the specialized study of all oil and natural gas matters throughout Canada.

The Alberta oil fields have been of leading importance since the discovery of the Turner Valley Field in 1914. Recent important developments of new fields near Edmonton have again emphasized the significance of this area.

*Alberta Oil Fields.\**—The 1948 oil output from Alberta fields reached the record level of 10,973,583 bbl., approximately 4,000,000 bbl. more than in the preceding year and over 837,000 bbl. more than the previous record of 1942. In 1942 the Turner Valley field produced what was for all practical purposes the whole of Canada's oil, the remainder, 132,361 bbl. being produced from nine other Alberta fields and 248,000 bbl. from wells in Ontario, New Brunswick and the Northwest Territories. In 1942 the output of the Turner Valley field began to decline and has continued to decline. The field still contributes, however, about 45 p.c. of Alberta's oil. Production from the Turner Valley amounted to 4,900,739 bbl. in 1948 and in that year six new wells were brought into production in the field.

The Leduc field, discovered in February, 1947, is replacing Turner Valley as Alberta's, and Canada's, greatest oil field. Output from that field increased from 122,297 bbl. in January, 1948, to 661,106 bbl. in December, to make the year's total of 4,657,371 bbl. This output was achieved in spite of the interruption caused by Atlantic No. 3 running 'wild' from the end of March until fire broke out and was extinguished on Sept. 6 and the well was 'killed'. On May 14 the entire field was shut down by order of the Petroleum and Natural Gas Conservation Board so that all transportation facilities might be made available for the removal of the uncontrolled flow from Atlantic No. 3, which at one time was as high as 14,000 bbl. a day. By June 5 the situation was sufficiently in hand to permit resumption of production from all wells but at reduced quotas. In October, 1949, 327 of Alberta's operating wells were in the Leduc field. In the Redwater field, 45 miles northeast of Edmonton, discovered in the autumn of 1948, there were in October, 1949, 205 operating wells giving an average of 20,000 bbl. a day. In the winter of 1948-49 an important discovery was made west of the Woodbend sector of the Leduc field.

Fourth in barrelage among the Alberta fields is Lloydminster. This area, partly in Alberta and partly in Saskatchewan, is without rival in the heavy oil field, being notable for its output of asphaltic oil. In the summer of 1949 both the Canadian National Railway and the Canadian Pacific Railway converted a considerable proportion of their coal-burning locomotives to oil burners, using fuel from this field. This field (including Lone Rock), produced 1,494,161 bbl. in 1948. Of this total 648,055 bbl. was from the Alberta portion which came into production in 1939 and now shows a production rate of 1,549,299 bbl. Of the other Alberta fields, Princess showed the greatest development during 1948.

\* Summarized from *Alberta Oil Review, 1948*, by A. C. Ballantine, Supervisor of Technical Publications, Government of Alberta. Figures in this review are compiled on a basis different from that used in the compilation of Table 23.



Exploration and development continued not only unabated but accelerated. During 1948 rotary bits drilled 1,663,687 ft. into the earth compared with 882,358 ft. in 1947 and 401,920 ft. in 1946. At the end of the year, 65 exploration parties were carrying out operations, most of them north of the North Saskatchewan River. The 1948 revenue to Alberta crude oil producers amounted to \$35,127,751 as compared with \$18,078,907 in 1947.

Early in 1949, the capacity of the Alberta refinery, estimated at 35,250 bbl. daily, was found to be insufficient to handle the average daily production of crude oil, not including natural gasoline, which was 50,673 bbl. at May 1, 1949. To remedy the situation a pipeline with a capacity of 40,000 bbl. daily is being constructed from Edmonton to the Head of the Lakes.

The following table gives production by fields in 1948.

#### 24.—Production of Alberta Oil Fields, 1948

NOTE.—Figures for total production of petroleum for 1922–46 are given at p. 473 of the 1947 Year Book and production in the different fields for 1947 at p. 477 of the 1948–49 edition.

Field	Quantity	Field	Quantity
	bbl.		bbl.
Turner Valley.....	4,900,739	Vermilion.....	112,331
Leduc.....	4,657,371	Redwater.....	36,875 <sup>1</sup>
Lloydminster (Alberta side).....	648,055	Wainwright.....	17,131
Taber.....	201,527	Miscellaneous.....	30,215
Princess.....	189,712		
Conrad.....	179,627	<b>Totals.....</b>	<b>10,973,583</b>

<sup>1</sup> Three months.

*The Tar Sands and Bituminous Developments.\**—Alberta, in its bituminous sands deposit at McMurray, has the greatest known oil reserve on the face of the earth. Estimates vary between that of Canadian geologists at 100,000,000,000 tons and that of the United States Bureau of Mines at 250,000,000,000 tons. The yield at present is about one barrel of oil per ton of sands. The exposures of these oil-soaked sands occur not only downstream from McMurray to Bitumount and some five miles beyond (a distance of 60 miles altogether) but also upstream in the opposite direction and eastward along the Christina River which flows into the Clearwater River 15 miles from McMurray, and on the tributaries of the Athabaska River between McMurray and Bitumount. The whole area is approximately 60 miles long and 20 miles wide, i.e., 1,200 square miles.

A processing plant, now operated by the Alberta Government, is situated at Bitumount. Overburden covering the outcrop is very light at this point and the product, being soft, lends itself more readily to separation than the harder outcrop in other parts of the reserve.

Another feature of the Bitumount area is the usage of the separated sand for glass, quantities of which have been transported to points of manufacture.

A rich deposit of 'liquid bitumen' has been uncovered by Federal Government geologists on the west side of the Mildred-Ruth Lakes area, at Waterways, 20 miles north of Fort McMurray in northeastern Alberta. The estimate of bitumen content per acre ranges as high as 350,000 bbl.

**Natural Gas.**—The producing natural gas wells in Eastern Canada are in southwestern Ontario, and near Moncton, N.B. In Western Canada the principal producing fields are in Alberta and include the Turner Valley (about 35 miles south-

\* See footnote to p. 537



west of Calgary), Medicine Hat, Viking (about 80 miles southeast of Edmonton), Redcliff, Foremost, Bow Island and Wetaskiwin. Wainwright, Alta., is supplied with gas from the Maple Leaf Well in the Fabyan field. In 1948, Alberta was credited with 56 p.c. of total value and 83 p.c. of the total quantity of natural gas. Ontario produced over 42 p.c. of the value and over 16 p.c. of the total quantity.

## 25.—Quantities and Values of Natural Gas Produced, by Provinces, 1939-48

NOTE.—For the years 1892-1919, see the Annual Report on the Mineral Production of Canada, 1928, p. 188; for the years 1920-28 see p. 347 of the 1940 Canada Year Book; and for 1929-38, p. 350 of the 1946 edition.

Year	New Brunswick		Ontario		Alberta		Canada <sup>1</sup>	
	M cu. ft.	\$	M cu. ft.	\$	M cu. ft.	\$	M cu. ft.	\$
1939.....	606,382	292,403	11,966,581	7,261,928	22,513,660	4,915,821	35,185,146	12,507,307
1940.....	616,041	300,543	13,053,403	7,745,834	27,459,808	4,923,469	41,232,125	13,000,593
1941.....	653,542	317,437	11,825,703	7,140,130	30,905,440	5,175,364	43,495,353	12,665,116
1942.....	619,380	299,688	10,476,770	6,809,901	34,482,585	6,146,146	45,697,359	13,301,655
1943.....	675,029	327,787	7,914,408	6,543,913	35,569,078	6,241,815	44,276,216	13,159,418
1944.....	702,464	341,636	7,082,508	4,694,097	37,161,570	6,339,817	45,067,158	11,422,551
1945.....	653,230	317,568	7,199,970	4,837,586	40,393,061	7,095,910	48,411,585	12,309,564
1946.....	541,010	262,441	7,051,309	4,656,528	40,087,096	7,184,006	47,900,484	12,165,050
1947.....	489,810	279,790	7,785,921	5,334,991	44,106,643	7,745,886	52,656,567	13,429,558
1948 <sup>2</sup> .....	416,826	237,590	9,032,913	6,142,380	46,800,000	8,190,000	56,636,951	14,608,689

<sup>1</sup> Includes small amounts produced in Saskatchewan and the Northwest Territories. <sup>2</sup> 1948 figures subject to revision.

## Subsection 5.—Production of Non-Metallic Minerals (Excluding Fuels)

The most important minerals in this group are asbestos, gypsum and salt, but it also includes numerous other items such as feldspar, graphite, iron oxide, magnesitic dolomite, mica, nepheline syenite, peat moss, sulphur, silica brick, sodium sulphate, soapstone and talc.

**Asbestos.**—The asbestos produced in Canada is practically all of the chrysotile variety and comes entirely from the serpentinized rock in the Eastern Townships of Quebec. The value of the annual production of asbestos increased from less than \$24,700 in 1880 to \$33,005,748 in 1947 and \$41,318,118 in 1948. The Canadian deposits are the largest known in the world. The producing centres are Thetford Mines, which has been producing since 1878, Black Lake, East Broughton, Vimy Ridge, Asbestos, and St. Remi de Tingwick in Quebec. The veins of chrysotile asbestos vary in width from one-quarter inch to one-half inch and occasionally fibre has been obtained several inches in length. The fibre is of good quality and well adapted to spinning.

The world's largest market is in the United States and Canada's proximity to this market is very advantageous to the asbestos industry in this country.

## 26.—Quantities and Values of Asbestos Produced, 1939-48

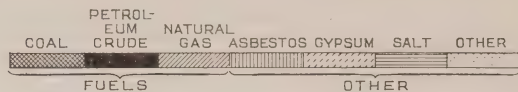
NOTE.—Figures for the years 1896-1910, inclusive, will be found at p. 424 of the 1911 Year Book; for the years 1911-28 at p. 354 of the 1939 edition; and for 1929-38 at p. 353 of the 1946 edition.

Year	Quantity		Year	Quantity	
	short tons	\$		short tons	\$
1939.....	364,472	15,859,212	1944.....	419,265	20,619,516
1940.....	346,805	15,619,865	1945.....	466,897	22,805,157
1941.....	477,846	21,468,840	1946.....	558,181	25,240,562
1942.....	439,459	22,663,283	1947.....	661,821	33,005,748
1943.....	467,196	23,169,505	1948 <sup>1</sup> .....	707,843	41,318,118

<sup>1</sup> 1948 figures subject to revision.

# PRODUCTION OF NON-METALLIC MINERALS

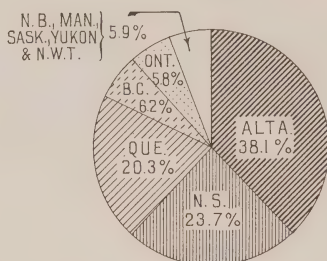
1926-48



MILLION

200

## PERCENTAGE DISTRIBUTION OF PRODUCTION OF NON-METALLIC MINERALS BY PROVINCES



150

100

50

0

1926

1930

1935

1940

1945

1948

**Gypsum.**—The use of gypsum in the building trades has increased rapidly and Canada has extensive deposits of gypsum favourably situated for commercial developments. They are located chiefly in Hants, Inverness and Victoria counties, N.S.; Hillsborough, N.B.; Hagersville and Caledonia, Ont.; Gypsumville and Amaranth, Man.; and Falkland, B.C. The Hillsborough deposit of gypsum in New Brunswick is of very high grade. Gypsum is exported from Canada in crude form mainly to the United States for the manufacture of gypsum products. Canadian production of gypsum amounted to 3,219,469 tons in 1948.

### 27.—Gypsum Produced, by Provinces, 1939-48

NOTE.—Figures for the years 1926-38 are given at p. 321 of the 1943-44 Year Book.

Year	Nova Scotia		New Brunswick	Ontario	Manitoba	British Columbia	Canada	
	Quantity	Value	Quantity	Quantity	Quantity	Quantity	Quantity	Value
	tons	\$	tons	tons	tons	tons	tons	\$
1939.....	1,298,618	1,340,830	29,765	59,440	15,961	18,150	1,421,934	1,935,127
1940.....	1,278,204	1,302,347	52,218	75,271	23,108	19,987	1,448,788	2,065,933
1941.....	1,395,172	1,517,297	56,172	90,599	27,601	23,862	1,593,406	2,248,428
1942.....	394,216	512,762	36,623	82,796	29,218	23,313	566,166	1,254,182
1943.....	255,736	368,639	36,263	92,448	37,989	24,412	446,848	1,381,468
1944.....	401,284	489,932	42,040	90,288	38,330	24,222	596,164	1,511,978
1945.....	634,960	790,273	46,755	92,174	42,275	23,617	839,781	1,783,290
1946.....	1,538,738	1,812,515	38,539	122,524	63,187	47,649	1,810,937	3,671,503
1947.....	2,137,704	2,303,275	65,939	155,249	79,356	58,736	2,496,984	4,734,853
1948 <sup>1</sup> .....	2,787,929	3,339,039	100,481	180,559	90,300	60,200	3,219,469	5,583,921

<sup>1</sup> 1948 figures subject to revision.

**Salt.**—Salt is obtained from brine wells in the Provinces of Ontario, Manitoba and Alberta, while at Malagash, N.S., it is recovered by mining rock-salt and by evaporation from brine. The centres of production of the salt industry in Ontario are in Amherstburg, Goderich, Sandwich and Windsor.

In Alberta a new recovery plant near Lindbergh began operations in 1948; previously all the output in this Province was from the wells at Waterways. A new plant near Unity, Sask., was being made ready for production in 1949. The market for salt in Canada is steadily increasing. Domestic production is sold principally to the dairy, meat-curing and -canning industry, to fisheries, to highways and transport departments, to agriculturists for use as a soil sweetener, to the chemical industries, and as table salt. In 1948, Ontario produced 624,113 tons of salt, 84 p.c. of the Canadian total. About one-half of Canada's output is used in making caustic soda, soda ash and related chemicals.

### 28.—Salt Produced, by Provinces, 1939-48

NOTE.—Figures for the years 1926-38 are given at p. 354 of the 1946 Year Book.

Year	Nova Scotia	Ontario	Manitoba	Alberta	Canada	
	tons	tons	tons	tons	tons	\$
1939.....	47,885	370,843	2,453	3,319	424,500	2,486,632
1940.....	42,495	412,401	3,076	6,742	464,714	2,823,269
1941.....	54,007	477,170	13,051	16,617	560,845	3,196,165
1942.....	50,199	553,407	22,706	22,360	653,672	3,844,187
1943.....	47,775	594,889	27,523	17,499	687,686	4,379,378
1944.....	38,809	603,806	27,267	25,335	695,217	4,074,021
1945.....	37,825	578,697	27,133	29,421	673,076	4,054,720
1946.....	38,371	441,679	26,166	31,769	537,985	3,626,165
1947.....	40,107	633,766	24,974	29,698	728,545	4,436,930
1948 <sup>1</sup> .....	56,480	624,113	23,987	35,863	740,443	4,364,396

<sup>1</sup> 1948 figures subject to revision.



**Sulphur.**—Sulphur production statistics given in Table 29 represent the quantity and value of sulphur contained in iron pyrites shipped plus the quantity and value of sulphur reclaimed for acid manufacture, etc., from smelter fumes. As thus defined, the commercial output of sulphur in Canada during 1948 totalled 218,020 short tons, valued at \$1,732,818, compared with 221,781 tons worth \$1,822,867 in 1947. Production in 1948 comprised 81,820 tons of sulphur in iron pyrites and 136,200 tons recovered from smelter gases. Output by provinces was: Quebec 68,570 tons valued at \$255,218; Ontario 15,250 tons valued at \$152,500; and British Columbia 134,200 tons valued at \$1,325,100.

Sulphur is used in Canada chiefly in the production of sulphite pulp, sulphuric acid and rayon. It is used also in the manufacture of explosives, rubber goods, insecticides and matches and in petroleum refining.

### 29.—Quantities and Values of Sulphur Produced, 1939-48

NOTE.—Figures for the years 1926-38 are given at p. 355 of the 1946 Year Book.

Year	Quantity	Value	Year	Quantity	Value
	tons	\$		tons	\$
1939.....	211,278	1,668,025	1944.....	248,088	1,755,739
1940.....	170,630	1,298,018	1945.....	250,114	1,881,321
1941.....	260,023	1,702,786	1946.....	234,771	1,784,666
1942.....	303,714	1,994,891	1947.....	221,781	1,822,867
1943.....	257,515	1,753,425	1948 <sup>1</sup> .....	218,020	1,732,818

<sup>1</sup> 1948 figures subject to revision.

### Subsection 6.—Production of Clay Products and Other Structural Materials

**Clay Products and Other Structural Materials.**—Production of clay products and structural materials is dependent upon the activity of the construction industry in Canada; output in 1948 reached a record value of \$98,779,361. This group includes cement, clay and clay products (brick, drain tile, sewer pipe, etc.), lime, sand, gravel and stone. The cement industry in Canada began with the manufacture of hydraulic or natural rock cement. Production was probably first obtained at Hull, Que., between 1830 and 1840. The manufacture of Portland cement began about 1889 and the largest production is now in Quebec and Ontario, although there are active plants in Manitoba, Alberta and British Columbia. Common clays, suitable for the production of building bricks and tile are found in all the provinces of Canada, although production is greatest in Ontario and Quebec.

Stoneware clays are largely produced from the Eastend and Willows area in Saskatchewan and shipped to Medicine Hat, Alta., where, owing to the availability of cheap gas fuel, they are used extensively in the manufacture of stoneware, sewer pipe, pottery, tableware, etc. Stoneware clay also occurs near Shubenacadie and Musquodoboit in Nova Scotia; some of the Musquodoboit clay is used for pottery but it has not been developed extensively for ceramic use. Two large plants and a few small plants manufacture fireclay refractories from domestic clay in British Columbia, Saskatchewan and Nova Scotia.

Important deposits of high-grade, plastic, white burning clays occur in northern Ontario, and clay deposits which yield a high-grade of china clay have been found along the Fraser River in British Columbia, but china clay has been produced commercially only from the vicinity of St. Remi d'Amherst, Papineau County, Que., where mining operations were carried on prior to 1923.



Ball clays of high bond strength occur in the "White Mud" beds of southern Saskatchewan, but these have not been developed to any extent.

### 30.—Values of Clay Products and Other Structural Materials Produced, by Provinces, 1939-48

NOTE.—Figures for the years 1926-38 are given at p. 355 of the 1946 Year Book.

Year	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Canada
	\$	\$	\$	\$	\$	\$	\$	\$	\$
1939....	1,829,207	1,911,041	12,319,773	12,856,694	1,646,797	556,973	1,947,453	2,314,821	35,382,759
1940....	1,855,771	936,161	15,001,749	16,636,844	2,600,304	906,181	2,971,550	2,795,389	43,703,949
1941 <sup>1</sup> ...	1,330,888	1,145,412	16,631,657	18,652,999	2,197,095	631,732	2,626,277	3,416,996	46,633,056
1942 <sup>1</sup> ...	1,980,912	1,305,343	17,723,293	16,557,804	2,317,933	707,123	2,836,160	3,564,405	46,992,973
1943....	1,597,791	911,121	15,430,999	15,020,990	2,288,339	932,412	2,661,834	3,166,768	42,010,254
1944....	1,081,805	1,637,409	14,597,540	15,716,361	2,546,722	864,082	3,044,236	3,496,782	42,984,937
1945....	1,310,214	1,489,210	17,051,353	17,437,552	3,212,917	834,564	3,305,941	3,777,922	48,419,673
1946....	1,671,504	1,817,401	22,615,910	24,293,081	4,235,389	1,322,107	4,765,108	5,399,721	66,120,221
1947....	2,724,584	2,397,433	29,236,137	30,447,055	4,772,908	1,632,625	4,726,752	8,639,872	84,576,785
1948 <sup>2</sup> ...	3,035,003	2,604,547	36,426,319	32,944,530	6,073,817	1,605,321	7,324,946	8,764,297	98,779,361

<sup>1</sup> Includes value of cement containers.

<sup>2</sup> 1948 figures subject to revision.

### 31.—Values (Total Sales) of Clay Products Produced, by Provinces, 1939-48

NOTE.—Figures for the years 1926-38 are given at p. 356 of the 1946 Year Book.

Year	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Canada
	\$	\$	\$	\$	\$	\$	\$	\$	\$
1939....	339,952	129,985	1,274,776	2,346,638	78,892	148,774	461,079	371,140	5,151,236
1940....	490,543	171,745	1,546,246	2,508,540	102,906	164,828	838,856	520,883	6,344,547
1941....	529,435	193,643	1,944,358	3,087,616	84,817	224,897	952,144	558,426	7,575,336
1942....	618,441	246,041	1,741,297	2,549,486	80,890	271,325	1,013,497	560,746	7,081,723
1943....	478,571	216,446	1,804,428	2,453,829	132,382	348,725	978,649	495,163	6,608,193
1944....	402,694	207,051	1,881,791	2,347,396	197,383	330,907	1,143,577	486,620	6,997,425
1945....	433,455	232,783	2,534,630	3,107,189	269,917	271,288	1,401,875	661,955	8,913,092
1946....	671,466	336,971	3,457,168	4,288,780	379,920	411,446	1,808,971	859,645	12,207,367
1947....	752,126	381,184	4,257,423	5,289,528	392,518	495,016	1,771,250	1,147,144	14,486,189
1948 <sup>1</sup> ...	857,100	410,200	5,134,200	6,307,922	486,358	552,260	2,212,183	1,389,846	17,350,099

<sup>1</sup> 1948 figures subject to revision.

### 32.—Quantities and Values of Production (Sales), Imports and Exports and Apparent Consumption of Portland Cement, 1938-47

NOTE.—Figures for the years 1910-28 are given at p. 356 of the 1939 Year Book; and for 1929-37 at p. 356 of the 1946 edition.

Year	Production <sup>1</sup>		Imports		Exports		Apparent Consumption	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	bbl. <sup>2</sup>	\$	bbl. <sup>2</sup>	\$	bbl. <sup>2</sup>	\$	bbl. <sup>2</sup>	\$
1938.....	5,519,102	8,241,350	48,497	105,326	89,419	101,059	5,478,180	8,245,617
1939.....	5,731,264	8,511,211	16,622	58,316	156,556	159,579	5,591,330	8,409,948
1940.....	7,559,648	11,775,345	13,213	69,821	299,975	414,442	7,272,886	11,430,724
1941.....	8,368,711	13,063,538	11,986	59,162	310,873	517,762	8,069,824	12,604,988
1942.....	9,126,041	14,365,237	26,320	116,126	273,880	476,284	8,878,481	14,005,079
1943.....	7,302,289	11,599,033	18,577	111,698	172,601	344,004	7,148,265	11,366,727
1944.....	7,190,851	11,621,372	14,004	97,966	210,449	377,434	6,994,406	11,341,904
1945.....	8,471,679	14,246,480	32,653	141,539	281,944	535,012	8,222,388	13,853,007
1946.....	11,560,463	20,122,503	350,057	1,098,532	114,370	236,276	11,796,170	20,984,759
1947.....	11,936,245	21,968,909	1,248,625	3,843,652	88,030	198,354	13,096,840	25,614,207

<sup>1</sup> 'Production' as used here means quantity and value of sales.

<sup>2</sup> The barrel of cement equals 350 lb.

**Sand and Gravel.**—Deposits of sand and gravel are numerous throughout eastern Canada, with the exception of Prince Edward Island where gravels are scarce. The local needs for these materials are usually supplied from the nearest deposits as their cost to the consumer is governed largely by the length of the haul. This accounts for the large number of small pits and the small number of large plants. Every province, except New Brunswick and Prince Edward Island, produces natural bonded sand. The greatest part of production of sand comes from the Niagara Peninsula, Ont.

Some grades of sand particularly suitable for certain industries demand a much higher price than ordinary sand. Commercial production of sand and gravel is greatest in Quebec and Ontario; these two provinces contributed 68 p.c. of the total quantity in 1948.

The greater part of the output of gravel and sand is used in road improvement, concrete works and railway ballast, and most of the commercial plants are equipped for producing crushed gravel, a product that can compete with crushed stone.

**Stone.**—The stone industry in Canada has two main divisions, stone quarrying and the stone-products industry. The kind of stone quarried in Canada includes granite, limestone, marble, sandstone and slate. The products of these quarries yield high-grade structural and decorative materials and also supply requirements for chemical and other allied industries. The gross value of stone of all varieties produced in Canada, in 1948, totalled \$17,080,999 as compared with \$16,464,749 in 1947.

### 33.—Quantities and Values of Sand, Sand and Gravel, and Stone Produced, 1945-47

Material and Purpose	1945		1946		1947	
	Quantity	Gross Value	Quantity	Gross Value	Quantity	Gross Value
	tons	\$	tons	\$	tons	\$
<b>Sand—</b>						
Moulding sand.....	31,611	57,842	32,375	61,419	26,397	61,736
For building, concrete, roads, etc.....	2,247,887	918,739	3,421,830	1,681,572	3,418,072	1,981,323
Other.....	191,510	68,468	61,801	19,117	46,172	18,350
<b>Sand and Gravel—</b>						
For railway ballast.....	4,625,513	1,116,297	3,968,123	867,616	4,161,151	956,241
For concrete, roads, etc.....	17,582,686	6,573,527	26,640,116	10,530,718	41,887,705	16,619,097
For mine filling.....	1,974,885	376,935	2,024,029	426,063	1,893,843	429,946
Crushed gravel.....	3,096,611	1,456,555	3,801,720	1,943,195	5,556,229	3,017,733
<b>Totals, Sand, Sand and Gravel.....</b>	<b>29,750,703</b>	<b>10,568,363</b>	<b>39,949,994</b>	<b>15,529,700</b>	<b>56,789,569</b>	<b>23,114,431</b>
<b>Stone—</b>						
Building.....	56,711	751,401	70,928	1,411,298	102,841	2,098,865
Monumental and ornamental.....	16,229	786,403	22,233	1,129,046	21,708	1,475,899
Limestone for agriculture.....	419,579	891,802	480,639	1,044,651	450,553	1,056,299
<b>Chemical Uses—</b>						
Flux.....	538,798	489,055	415,389	370,074	580,467	545,287
Pulp and paper.....	212,051	413,055	247,388	478,074	311,024	696,880
Other.....	300,665	313,059	208,371	215,917	313,110	504,005
Rubble and riprap.....	241,780	237,018	326,265	286,142	593,406	752,608
Crushed.....	4,282,286	3,742,506	6,073,451	5,340,831	8,254,311	8,119,479
<b>Totals, Stone<sup>1</sup>.....</b>	<b>6,205,555</b>	<b>8,166,700</b>	<b>8,056,260</b>	<b>11,185,711</b>	<b>10,889,388</b>	<b>16,464,749</b>

<sup>1</sup> Totals include minor items not specified.

## Section 4.—Industrial Statistics of Mines and Minerals— Capital, Labour, Wages, etc.

The scope of the annual statistics on mineral production published by the Dominion Bureau of Statistics includes a general review of the principal mineral industries, such as the copper-gold, silver-lead-zinc, and nickel-copper industries, as well as a section on metallurgical works. Additional data published at irregular intervals include such features as capital employed, numbers of employees, wages and salaries paid and net value of sales.

The figures for 'net income from sales' of industries given in Tables 34 and 35 are those reported by the operators and are, in each case, the settlements received for shipments by producers and the additional values obtained when the smelting of ores is completed in Canada. The totals indicate more nearly the actual returns to the different industries than do the values for the minerals in Table 3 of this Chapter where, in the case of copper, lead, zinc and silver, the values are computed by applying the average prices for the year in the principal metal markets to the total production from mines and smelters with no reduction for fuel, electricity and other supplies consumed in the production process. Some imported ores and concentrates are treated in Canadian non-ferrous smelting and refining works, especially in the production of aluminum where imported ore only is used and of cobalt which now comes mainly from African ores. The net sales of these plants include, therefore, the net value of the metals recovered from these imported ores and, to this extent, the net sales shown in Tables 34 and 35 include products of other than Canadian origin.

### 34.—Principal Statistics of the Mineral Industries, by Groups, 1942-47, and by Provinces, 1947

NOTE.—Figures for the years 1936-41 are given at pp. 453-454 of the 1947 Year Book.

Group and Year	Plants or Mines	Capital Employed	Em- ployees	Salaries and Wages	Purchased Fuel, Electricity and Process Supplies <sup>1</sup>	Net Income from Sales
	No.	\$	No.	\$	\$	\$
<b>METALLICS</b>						
1942.....	483	768,245,462	64,185	126,886,402	400,152,674	374,526,623
1943.....	359	800,060,147	64,324	128,483,302	467,165,380	336,544,720
1944.....	418	..	58,486	116,427,696	409,904,049	312,982,733
1945.....	871	..	49,684	102,669,882	319,549,277	267,798,653
1946.....	855	..	49,991	108,112,139	292,270,193	253,174,086
1947.....	728	..	56,783	137,535,631	413,106,345	351,372,437
<b>FUELS</b>						
1942.....	6,238	246,242,581	30,117	48,566,913	12,277,793	76,393,437
1943.....	6,168	254,888,821	30,754	55,351,328	12,653,594	75,686,828
1944.....	6,279	..	29,953	63,720,867	14,156,767	78,491,468
1945.....	6,343	..	29,159	56,323,718	12,716,321	76,513,440
1946.....	6,504	..	28,705	57,095,907	13,909,648	83,647,800
1947.....	6,445	..	25,307	52,424,652	12,818,411	92,377,643
<b>NON-METALLICS (EXCLUDING FUELS)</b>						
1942.....	290	41,734,421	8,117	10,793,259	7,822,375	27,855,522
1943.....	257	41,654,689	7,989	11,055,861	8,410,143	30,833,183
1944.....	248	..	8,233	12,164,400	8,104,871	29,632,077
1945.....	203	..	8,318	12,712,321	8,961,846	31,379,055
1946.....	192	..	9,108	14,307,623	10,011,510	33,404,218
1947.....	207	..	9,593	17,341,962	12,901,464	41,570,032

<sup>1</sup> Includes freight and smelter charges and cost of ores treated.



### 34.—Principal Statistics of the Mineral Industries, by Groups, 1942-47, and by Provinces, 1947—concluded

Group, Year and Province	Plants or Mines	Capital Employed	Em- ployees	Salaries and Wages	Purchased Fuel, Electricity and Process Supplies <sup>1</sup>	Net Income from Sales
CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS	No.	\$	No.	\$	\$	\$
1942.....	5,886	89,123,449	9,624	12,303,686	11,658,604	35,334,369
1943.....	5,665	86,838,770	9,073	12,685,464	10,656,440	32,464,633
1944.....	6,007	..	8,206	12,495,351	11,219,057	32,916,190
1945.....	5,598	..	9,089	13,574,005	11,916,882	37,885,652
1946.....	5,906	..	11,392	17,233,022	16,120,768	51,848,199
1947.....	6,115	..	12,836	22,258,359	19,507,566	66,989,837
<b>Grand Totals</b>						
1942.....	12,897	1,145,345,913	112,043	198,550,260	431,911,446	514,109,951
1943.....	12,449	1,183,442,427	112,140	207,575,955	498,885,557	475,529,364
1944.....	12,952	..	104,878	204,808,314	443,384,744	454,022,468
1945.....	13,015	..	96,250	185,279,926	353,144,326	413,576,800
1946.....	13,457	..	99,196	196,748,691	332,312,119	422,074,303
1947.....	13,495	..	104,519	229,560,604	458,333,786	552,309,949
<b>1947</b>						
<b>PROVINCE AND TERRITORY</b>						
Nova Scotia.....	647	..	11,716	21,637,321	7,092,436	25,851,459
New Brunswick.....	431	..	1,473	2,349,749	754,369	5,067,591
Quebec.....	3,529	..	24,930	50,729,876	135,047,443	122,998,963
Ontario.....	6,420	..	34,727	80,436,924	171,660,372	194,853,504
Manitoba.....	183	..	2,547	5,836,505	12,002,207	14,630,855
Saskatchewan.....	514	..	2,831	6,856,253	29,844,989	29,577,508
Alberta.....	1,040	..	11,365	25,528,877	6,477,949	58,099,365
British Columbia.....	825	..	13,546	31,631,916	94,119,191	97,781,055
Yukon.....	9	..	548	2,085,089	509,021	1,575,208
Northwest Territories....	97	..	836	2,468,094	825,809	1,874,341

<sup>1</sup> Includes freight and smelter charges and cost of ores treated.

A summary of the industrial statistics of the principal mineral industries operating in Canada in 1944, 1945, 1946 and 1947 is presented in Table 35. The difficulties imposed by the War in the way of labour shortages, lack of new equipment and essential supplies necessary for the mines, resulted in a steady drop in the gross value of production for the entire auriferous quartz mining industry. The gross value of recoverable metals, gold, silver, etc., in the quartz mining industry, which was \$179,000,000 in 1941, fell steadily to \$86,000,000 in 1945 but increased to \$96,000,000 in 1947.

### 35.—Principal Statistics of the Mineral Industries, 1944-47

Industry and Year	Plants or Mines	Em- ployees	Salaries and Wages	Purchased Fuel, Electricity and Process Supplies <sup>1</sup>	Net Income from Sales
<b>Metallics</b>	No.	No.	\$	\$	\$
Alluvial gold.....1944	47	211	598,556	84,104	1,197,021
.....1945	38	234	692,683	80,748	1,546,005
.....1946	39	340	1,112,984	155,943	1,693,568
.....1947	46	458	1,684,449	238,079	1,635,086

<sup>1</sup> Includes freight and smelter charges and cost of ores treated.



## 35.—Principal Statistics of the Mineral Industries, 1944-47—continued

Industry and Year	Plants or Mines	Em- ployees	Salaries and Wages	Purchased Fuel, Electricity and Process Supplies <sup>1</sup>	Net Income from Sales
	No.	No.	\$	\$	\$
<b>Metallics—concluded</b>					
Auriferous quartz.....1944	262	17,226	37,023,505	19,029,032	75,234,384
1945	716	18,388	37,690,177	18,242,253	67,577,062
1946	686	21,973	47,211,062	22,080,531	66,342,152
1947	517	22,906	54,612,474	26,398,328	69,727,950
Copper-gold-silver.....1944	26	5,175	10,710,071	24,191,776	38,198,039
1945	41	4,658	9,663,612	21,134,603	38,165,269
1946	43	4,958	10,243,487	16,870,567	37,433,982
1947	32	5,220	13,149,093	18,125,109	52,173,584
Silver-cobalt.....1944	11	165	260,575	99,600	323,260
1945	8	166	247,203	69,967	82,508
1946	11	247	404,012	118,363	207,483
1947	12	183	359,963	90,374	253,563
Silver-lead-zinc.....1944	20	2,769	5,810,290	4,489,198	16,802,759
1945	20	2,485	5,473,582	3,934,261	23,167,203
1946	31	2,451	5,987,111	9,079,895	39,262,606
1947	62	3,240	8,304,915	18,262,337	59,862,251
Nickel-copper.....1944	9	7,628	14,678,695	9,048,726	54,621,089
1945	8	5,997	13,008,156	7,790,226	45,605,169
1946	9	4,439	10,166,680	5,332,956	34,960,264
1947	24	6,144	15,685,963	8,284,711	46,211,129
Miscellaneous metals.....1944	27	1,385	2,809,013	2,057,850	3,303,143
1945	23	985	2,041,349	2,519,571	1,756,559
1946	21	1,037	2,338,442	3,479,336	3,708,109
1947	19	1,183	2,970,903	4,472,117	5,710,222
Smelting and refining.....1944	16	23,927	44,536,991	350,903,763	123,303,038
1945	17	16,771	33,853,120	265,777,648	89,898,878
1946	15	14,546	30,648,361	235,152,602	69,665,922
1947	16	17,449	40,767,871	337,235,290	115,798,652
<b>Totals, Metallics.....1944</b>	<b>415</b>	<b>58,486</b>	<b>116,427,696</b>	<b>409,904,049</b>	<b>312,982,733</b>
1945	871	49,684	102,669,882	319,549,277	267,798,653
1946	855	49,991	108,112,139	292,270,193	253,174,086
1947	728	56,783	137,535,631	413,106,345	351,372,437
<b>Fuels</b>					
Coal.....1944	394	25,596	55,020,537	12,712,820	54,344,700
1945	373	25,301	49,431,965	11,604,450	52,642,796
1946	365	25,487	51,343,975	12,637,105	59,607,029
1947	350	22,227	46,312,295	11,701,500	61,617,921
Natural gas.....1944	3,621	1,810	2,885,654	201,152	9,571,205
1945	3,748	1,890	2,993,091	245,812	10,614,782
1946	3,825	1,655	2,491,361	248,437	10,339,738
1947	3,799	1,784	3,057,249	240,319	12,093,013
Petroleum.....1944	2,264	2,547	5,814,676	1,242,795	14,575,563
1945	2,222	1,968	3,898,662	866,059	13,255,862
1946	2,314	1,563	3,260,571	1,024,106	13,701,033
1947	2,296	1,296	3,055,108	876,592	18,666,709
<b>Totals, Fuels.....1944</b>	<b>6,279</b>	<b>29,953</b>	<b>63,720,867</b>	<b>14,156,767</b>	<b>78,491,468</b>
1945	6,343	29,159	56,323,718	12,716,321	76,513,440
1946	6,504	28,705	57,095,907	13,909,648	83,647,800
1947	6,445	25,307	52,424,652	12,818,411	92,377,643

<sup>1</sup> Includes freight and smelter charges and cost of ores treated.

## 35.—Principal Statistics of the Mineral Industries, 1944-47—continued

Industry and Year	Plants or Mines	Em- ployees	Salaries and Wages	Purchased Fuel, Electricity and Process Supplies <sup>1</sup>	Net Income from Sales
	No.	No.	\$	\$	\$
<b>Non-Metallics (Excluding Fuels)</b>					
Asbestos.....	1944 10	4,050	6,401,185	4,016,059	17,820,317
	1945 12	4,237	6,679,885	4,235,725	19,857,074
	1946 12	4,547	7,771,921	4,975,892	20,269,687
	1947 12	4,885	9,165,450	6,824,465	26,191,500
Feldspar, quartz and nepheline syenite.....	1944 42	529	772,385	467,937	1,636,093
	1945 31	483	767,517	467,290	1,626,590
	1946 36	517	876,034	440,701	1,727,972
	1947 39	503	1,134,107	719,986	1,921,871
Gypsum.....	1944 14	328	490,872	387,941	1,124,037
	1945 13	434	647,287	575,645	1,207,645
	1946 14	753	1,246,673	806,571	2,890,156
	1947 13	908	1,695,711	1,049,297	3,733,132
Iron oxides.....	1944 6	55	49,876	37,485	112,765
	1945 5	51	58,011	35,401	136,652
	1946 5	60	77,727	36,017	116,251
	1947 6	54	82,369	40,904	217,418
Mica.....	1944 70	400	359,797	56,624	784,402
	1945 40	174	190,138	50,492	182,778
	1946 27	129	153,616	38,086	160,953
	1947 38	118	147,351	28,595	172,308
Peat (moss and fuel).....	1944 39	1,183	1,154,009	383,376	1,780,000
	1945 37	1,233	1,304,249	516,104	1,874,202
	1946 41	1,391	1,562,689	671,161	2,249,651
	1947 42	1,224	1,602,265	672,144	2,136,495
Salt.....	1944 9	710	1,302,143	1,498,424	3,287,660
	1945 9	724	1,329,384	1,623,241	3,241,456
	1946 9	713	918,566	1,590,416	2,890,423
	1947 10	700	1,399,693	1,872,839	3,493,193
Talc and soapstone.....	1944 6	113	133,883	68,165	289,084
	1945 5	103	134,782	79,582	215,306
	1946 5	87	117,551	63,568	240,116
	1947 5	73	110,527	41,690	224,687
Miscellaneous <sup>2</sup> .....	1944 52	865	1,500,250	1,188,860	2,797,719
	1945 51	879	1,601,068	1,378,366	3,037,352
	1946 43	911	1,582,846	1,389,098	2,859,009
	1947 42	1,038	2,004,489	1,651,544	3,479,428
<b>Totals, Non-Metallics.....</b>	<b>1944 248</b>	<b>8,233</b>	<b>12,164,400</b>	<b>8,104,871</b>	<b>29,632,077</b>
	<b>1945 203</b>	<b>8,318</b>	<b>12,712,321</b>	<b>8,961,846</b>	<b>31,379,055</b>
	<b>1946 192</b>	<b>9,108</b>	<b>14,307,623</b>	<b>10,011,510</b>	<b>33,404,218</b>
	<b>1947 207</b>	<b>9,593</b>	<b>17,341,962</b>	<b>12,901,464</b>	<b>41,570,932</b>
<b>Clay Products, etc.</b>					
CLAY PRODUCTS					
Brick, tile and sewer pipe.....	1944 102	1,889	2,819,912	1,451,686	4,711,125
	1945 98	2,254	3,348,351	1,892,051	6,093,719
	1946 111	2,879	4,496,283	2,553,369	8,461,331
	1947 115	3,218	5,750,568	3,152,905	10,483,320
Stoneware and pottery.....	1944 8	358	356,892	66,816	767,798
	1945 8	434	479,855	82,632	844,690
	1946 8	555	619,679	90,308	1,102,359
	1947 9	334	454,137	66,351	783,613
<b>Totals, CLAY PRODUCTS.....</b>	<b>1944 110</b>	<b>2,247</b>	<b>3,176,804</b>	<b>1,518,502</b>	<b>5,478,923</b>
	<b>1945 106</b>	<b>2,688</b>	<b>3,828,206</b>	<b>1,974,683</b>	<b>6,938,409</b>
	<b>1946 119</b>	<b>3,437</b>	<b>5,115,962</b>	<b>2,643,677</b>	<b>9,563,690</b>
	<b>1947 124</b>	<b>3,552</b>	<b>6,204,705</b>	<b>3,219,256</b>	<b>11,266,933</b>

<sup>1</sup> Includes freight and smelter charges and cost of ores treated.<sup>2</sup> Includes natural abrasives.

## 35.—Principal Statistics of the Mineral Industries, 1944-47—concluded

Industry and Year	Plants or Mines	Em- ployees	Salaries and Wages	Purchased Fuel, Electricity and Process Supplies <sup>1</sup>	Net Income from Sales
	No.	No.	\$	\$	\$
<b>Clay Products, etc.—concluded</b>					
<b>OTHER STRUCTURAL MATERIALS</b>					
Cement.....1944	8	1,207	2,254,775	5,764,387	6,882,354
1945	8	1,317	2,398,117	6,005,605	9,416,426
1946	8	1,524	2,929,020	8,793,963	12,930,058
1947	8	1,650	3,679,446	10,132,574	13,449,437
Lime.....1944	42	815	1,414,426	2,046,550	5,005,235
1945	44	856	1,473,829	2,068,489	4,663,859
1946	41	918	1,616,839	2,412,041	4,910,127
1947	42	1,038	2,052,801	3,086,779	5,763,244
Sand and gravel.....1944	5,381	1,773	2,494,657	391,738	9,888,381
1945	5,011	2,074	2,759,206	416,390	10,151,973
1946	5,252	2,793	3,600,797	579,489	14,950,211
1947	5,458	3,430	4,941,148	813,027	22,301,404
Stone.....1944	466	2,164	3,154,689	1,497,880	5,661,297
1945	429	2,154	3,114,647	1,451,715	6,714,985
1946	486	2,720	3,970,404	1,691,598	9,494,113
1947	483	3,166	5,380,259	2,255,930	14,208,819
<b>TOTALS, OTHER STRUCTURAL MATERIALS.....1944</b>	<b>5,897</b>	<b>5,959</b>	<b>9,318,547</b>	<b>9,700,555</b>	<b>27,437,267</b>
1945	5,492	6,401	9,745,799	9,942,199	30,947,243
1946	5,787	7,955	12,117,060	13,477,091	42,284,509
1947	5,991	9,284	16,053,654	16,288,310	55,722,904
<b>Totals, Clay Products, etc.....1944</b>	<b>6,007</b>	<b>8,206</b>	<b>12,495,351</b>	<b>11,219,057</b>	<b>32,916,190</b>
1945	5,598	9,089	13,574,005	11,916,882	37,885,652
1946	5,906	11,392	17,233,022	16,120,768	51,848,199
1947	6,115	12,836	22,258,359	19,507,566	66,989,837
<b>Grand Totals.....1944</b>	<b>12,952</b>	<b>104,878</b>	<b>204,808,314</b>	<b>443,384,744</b>	<b>454,022,468</b>
1945	13,015	96,250	185,279,926	353,144,326	413,576,800
1946	13,457	99,196	196,748,691	332,312,119	422,074,362
1947	13,495	104,519	229,560,604	458,333,786	552,309,949

<sup>1</sup> Includes freight and smelter charges and cost of ores treated.**Research\***

**Bureau of Mines.**—The Bureau of Mines serves Canadian industry through its investigative and research work covering the following fields: investigations in reference to economic matters affecting the development, use and conservation of Canada's mineral resources; the treatment and beneficiation of metallic and non-metallic ores and industrial minerals, including clays and building materials; investigations of the development, applications and use of Canadian metals and their alloys; the utilization of Canadian fuels of all types; and the administration of the Explosives Act.

To render these services, the Bureau maintains up-to-date laboratories with various auxiliary services and workshops.

**Division of Mineral Resources.**—This Division carries out continuous economic studies of the Canadian mining industry, the results of which are published in various annual reports. The Division is available for consultation by other Government Departments and by industry. Resources and occurrences of Canadian minerals are studied, as well as treatment and utilization of the industrial minerals.

\* Revised by the Department of Mines and Resources, Ottawa.

*Division of Mineral Dressing and Process Metallurgy.*—This unit maintains up-to-date laboratories and mills for the treatment of Canadian ores and ceramic materials, and the development of recommended processes. This service is available to all Canadian producers. In addition, research investigation of special problems is carried out.

*Division of Physical Metallurgy.*—This Division provides scientific metallurgical services to the Canadian metal-fabricating industries. It carries on research for improving existing alloys, developing new alloys and conserving strategic minerals. Its facilities for work on both ferrous and non-ferrous metals include experimental foundry and die casting, rolling and extruding equipment, also mechanical testing, metallography, corrosion, metal physics and welding laboratories.

*Radioactivity Division.*—This unit provides services to aid development of radioactive ore deposits in Canada. Its services, available to producers and prospective producers, include developing ore-treatment methods for extracting uranium. The Division carries on research into chemical and physical means of determining radioactivity and on developing instruments to detect radioactive ores.

*Division of Fuels.*—This Division investigates the methods of exploring, developing, mining, recovering, processing, utilizing and marketing domestic fuels. It maintains laboratories for research on solid, liquid and gaseous fuels including preparation, beneficiation, combustion, carbonization, briquetting and coking of coals; investigations on petroleum, bitumen, natural gas, and concerning hydrogenation of fuels.

*Explosives Division.*—This unit, in addition to administering the Explosives Act, 1946, and regulations thereunder, carries on research for improving the testing of explosives and assisting manufacturers in their methods and controls. The Explosives Testing and Research Laboratory is maintained jointly with the National Research Council.

## Section 5.—World Production of Metallic Minerals and Fuels

World production figures are available only for gold, silver and certain fuels. Tables 36 and 37 give historical figures of world production of gold and silver. These figures are the official returns from foreign countries but in Table 38 estimates have been included where complete data are lacking.

### 36.—Quantities and Values of World Production of Gold<sup>1</sup>, 1936-47

(Source: The Annual Report of the Director of the United States Mint)

NOTE.—Figures for intervening years from 1900-25 are given at p. 335 of the 1946 Year Book and 1926-35 at p. 463 of the 1947 edition.

Year	Quantity	Value	Year	Quantity	Value
	oz. fine	\$		oz. fine	\$
1936.....	32,930,554	1,152,569,390	1942.....	29,858,342	1,045,041,970
1937.....	35,118,298	1,229,140,430	1943.....	20,903,289	731,615,115
1938.....	37,703,334	1,319,616,690	1944.....	20,903,289	731,615,115
1939 <sup>2</sup> .....	31,122,723	1,089,295,305	1945.....	20,205,964	707,208,740
1940.....	33,678,608	1,178,751,070	1946.....	21,224,784	742,867,440
1941.....	33,685,199	1,178,981,965	1947.....	20,761,643	726,657,505

<sup>1</sup> Valued at \$35 per oz. fine.

<sup>2</sup> Estimates for those countries not reported were included prior to 1939 but for 1939 and subsequent years they are not contained in the totals.



### 37.—Quantities and Values of World Production of Silver, with Annual Average Prices, 1932-47

(Source: The Annual Report of the Director of the United States Mint)

NOTE.—Figures for the years 1860-99, inclusive, will be found at p. 346 of the 1939 Year Book; for the intervening years from 1900-25 at p. 337 of the 1946 edition and 1926-31 at p. 464 of the 1947 edition.

Year	Quantity	Value	Average Price per fine oz.	Year	Quantity	Value	Average Price per fine oz.
	'000 oz. fine	\$'000	\$		'000 oz. fine	\$'000	\$
1932.....	164,893	46,506	0.282	1940.....	228,693	80,271	0.351
1933.....	169,159	59,201	0.350	1941.....	228,505	80,205	0.351
1934.....	190,398	91,930	0.483	1942.....	218,721	84,426	0.386
1935.....	220,704	142,535	0.646	1943.....	193,231	87,147	0.451
1936.....	253,696	115,175	0.454	1944.....	169,466	76,429	0.451
1937.....	274,574	124,077	0.452	1945.....	142,730	74,505	0.522
1938.....	267,765	116,577	0.435	1946.....	120,647	103,394	0.857
1939 <sup>1</sup> .....	220,883	87,028	0.394	1947.....	147,925	106,210	0.718

<sup>1</sup> Estimates not included for countries not reported in 1939 and subsequent years.

**Gold.**—About 54 p.c. of the total gold production in 1947 represented in Table 38 was accounted for by the Union of South Africa (56 p.c. in 1946); 15 p.c. by Canada (13 p.c. in 1946); 10 p.c. by the United States (7 p.c. in 1946); 4 p.c. by Australia; and 3 p.c. by Southern Rhodesia in 1946 and 1947.

**Silver.**—Silver production in 1947 showed 40 p.c. of the total for Mexico (36 p.c. in 1946); 26 p.c. for the United States (18 p.c. in 1946); 8 p.c. for Canada (10 p.c. in 1946); and 7 p.c. for Peru (10 p.c. in 1946).

### 38.—Quantities and Values of the World Production of Gold and Silver, by Principal Countries, 1946 and 1947

NOTE.—Abridged from the Annual Report of the Director of the United States Mint.

Country	1946				1947			
	Gold		Silver		Gold		Silver	
	Quantity	Value (\$35.00 per oz.)	Quantity	Value (\$0.85728 per oz.) <sup>1</sup>	Quantity	Value (\$35.00 per oz.)	Quantity	Value (\$0.71832 per oz.) <sup>1</sup>
	oz. fine	\$	oz. fine	\$	oz. fine	\$	oz. fine	\$
<b>North America—</b>								
United States (refinery production)	1,462,354	51,182,390	21,103,269	18,091,410	2,165,318	75,786,130	38,587,069	27,717,863
<b>Canada.....</b>	<b>2,832,554</b>	<b>99,139,390</b>	<b>12,544,100</b>	<b>10,753,806</b>	<b>3,035,161</b>	<b>106,230,635</b>	<b>11,773,619<sup>2</sup></b>	<b>8,457,226</b>
Mexico.....	430,138	15,054,830	43,262,410	37,087,999	464,700	16,264,500	58,843,864	42,268,724
Newfoundland and Labrador...	7,485 <sup>3</sup>	261,975	599,048	513,552	10,553 <sup>3</sup>	369,530	661,002 <sup>2</sup>	474,811
<b>Central America and West Indies</b>	<b>245,605</b>	<b>8,596,175</b>	<b>3,270,211</b>	<b>2,803,486</b>	<b>239,207</b>	<b>8,372,245</b>	<b>2,942,813</b>	<b>2,113,881</b>
<b>South America—</b>								
Argentina.....	8,038	281,330	3	...	8,000	280,000	3	...
Bolivia.....	16,103	563,605	6,106,157	5,234,686	20,000	700,000	6,237,000	4,480,162
Brazil.....	140,482	4,916,870	21,968	18,833	135,000	4,725,000	20,300	14,582
British Guiana...	24,741	865,935	3	...	26,389	923,615	3	...
Chile.....	230,500	8,067,500	532,700	456,673	168,649	5,902,715	747,044	536,617
Colombia.....	437,176	15,301,160	152,474	130,713	383,027	13,405,945	110,830	79,611
Ecuador.....	75,390	2,638,650	254,271	217,981	55,114	1,928,990	156,931	112,727
Peru.....	158,378	5,543,230	12,334,150	10,573,820	118,347	4,142,145	10,782,909	7,745,579
Surinam.....	4,648	162,680	3	...	4,128	144,480	3	...
Venezuela.....	36,904	1,291,640	3	...	21,830	764,050	3	...

For footnotes, see end of table, p. 552.

### 38.—Quantities and Values of the World Production of Gold and Silver, by Principal Countries, 1946 and 1947—concluded

Country	1946				1947			
	Gold		Silver		Gold		Silver	
	Quantity	Value (\$35.00 per oz.)	Quantity	Value (\$35.728 per oz.) <sup>1</sup>	Quantity	Value (\$35.00 per oz.)	Quantity	Value (\$35.71832 per oz.) <sup>1</sup>
	oz. fine	\$	oz. fine	\$	oz. fine	\$	oz. fine	\$
<b>Europe—</b>								
Czechoslovakia...	1,903	66,605	620,638	532,060	2,090	73,150	643,000	461,880
Finland.....	6,012	210,420	137,420	117,807	8,363	292,705	182,113	130,815
France.....	48,355	1,692,425	535,213	458,827	32,890	1,151,150	...	...
Roumania.....	71,471	2,501,485	...	...	71,728	2,510,480	481,200	345,656
Spain.....	3,729	130,515	302,924	259,691	4,501	157,535	469,433	337,203
Sweden.....	91,630	3,207,050	824,667	706,971	56,746	1,986,110	645,683	463,807
<b>Asia—</b>								
India.....	131,775	4,612,125	9,821	8,419	171,782	6,012,370	14,749	10,595
Japan.....	43,200	1,512,000	1,281,600	1,098,696	69,200	2,422,000	2,272,400	1,632,310
Malaya.....	445	15,575	3	...	5,208	182,280	...	...
Philippines <sup>1</sup> .....	1,055	36,925	913	782	60,348	2,112,180	16,316	11,720
<b>Africa—</b>								
Bechuanaland...	9,739	340,685	1,701	1,458	7,381	258,335	1,086	780
Belgian Congo and Ruanda-Urundi..	331,313	11,595,955	5,043,165	4,323,404	301,445	10,550,575	4,051,000	2,909,914
British East Africa—								
Kenya.....	29,892	1,046,220	5,494	4,710	21,959	768,565	3,859	2,772
Tanganyika.....	48,428	1,694,980	21,179	18,156	47,317	1,656,095	20,794	14,937
Uganda.....	2,402	84,070	3	...	1,432	50,120	3	...
Cameroons (Fr.)..	11,928	417,480	3	...	11,574	405,090	3	...
Egypt.....	..	...	3	...	2,090	73,150	3	...
Anglo-Egyptian Sudan.....	5,598	195,930	3	...	3,725	130,375	3	...
Eritrea.....	3,411	119,385	3	...	3,674	128,590	3	...
Ethiopia.....	46,000	1,610,000	3	...	25,700	899,500	3	...
Fr. Equatorial Africa.....	71,558	2,504,530	3	...	34,100 <sup>6</sup>	1,193,500	3	...
Liberia.....	19,000	665,000	3	...	19,000	665,000	3	...
N. Rhodesia.....	6,838	239,330	634,392	543,852	779	27,265	73,277	52,636
Portuguese East Africa.....	5,766	201,810	805	690	5,780	202,300	820	589
S. Rhodesia.....	544,596	19,060,860	95,168	81,586	522,735	18,295,725	91,900	66,014
Swaziland.....	4,914	171,990	..	...	5,637	197,295	211	151
Union of South Africa.....	11,927,165	417,450,775	1,207,373	1,035,057	11,200,281	392,009,835	1,147,694	824,412
<b>Oceania—</b>								
Australia.....	824,480	28,856,800	9,073,481	7,778,514	937,654	32,817,890	6,658,296	4,782,787
Fiji.....	82,401	2,884,035	26,351	22,590	94,353	3,302,355	33,237	23,875
New Guinea.....	661	23,135	3	...	59,202	2,072,070	3	...
New Zealand.....	119,271	4,174,485	224,341	192,323	112,260	3,929,100	221,984	159,456
<b>Totals<sup>2</sup>.....</b>	<b>21,224,784</b>	<b>...</b>	<b>120,647,229</b>	<b>...</b>	<b>20,761,643</b>	<b>...</b>	<b>147,925,294</b>	<b>...</b>

<sup>1</sup> Average price per fine ounce at New York.  
reported.

<sup>4</sup> Refinery production in the United States.

<sup>2</sup> Exports to the United States.

<sup>5</sup> January-June.

<sup>3</sup> None

<sup>6</sup> Totals include all countries reporting.

**Coal.**—The total estimated world coal production in 1938, the latest year for which complete figures are available, was about 1,420,000,000 long tons.

**Petroleum.\***—During most of 1948 there was a scarcity of oil, but toward the end of that year a shift began to be perceptible. A drive for greater production appears to have been most successful, for world oil production was greater by 12 p.c. in 1948 than in 1947. Canadian production in 1948 was double that of 1947, 90 p.c. of this being contributed by Alberta. The Near East, led by the Saudi Arabian fields, produced 34 p.c. more in 1948 than during 1947, the United States 10 p.c. more, Venezuela 12 p.c. and Mexico 4 p.c. There was a diminishing demand in 1948 from Europe and the eastern United States.

\* Preliminary data supplied by A. C. Ballantine, Supervisor of Technical Publications, Department of Economic Affairs, Edmonton, Alta.

# CHAPTER XVI.—POWER GENERATION AND UTILIZATION

## CONSPECTUS

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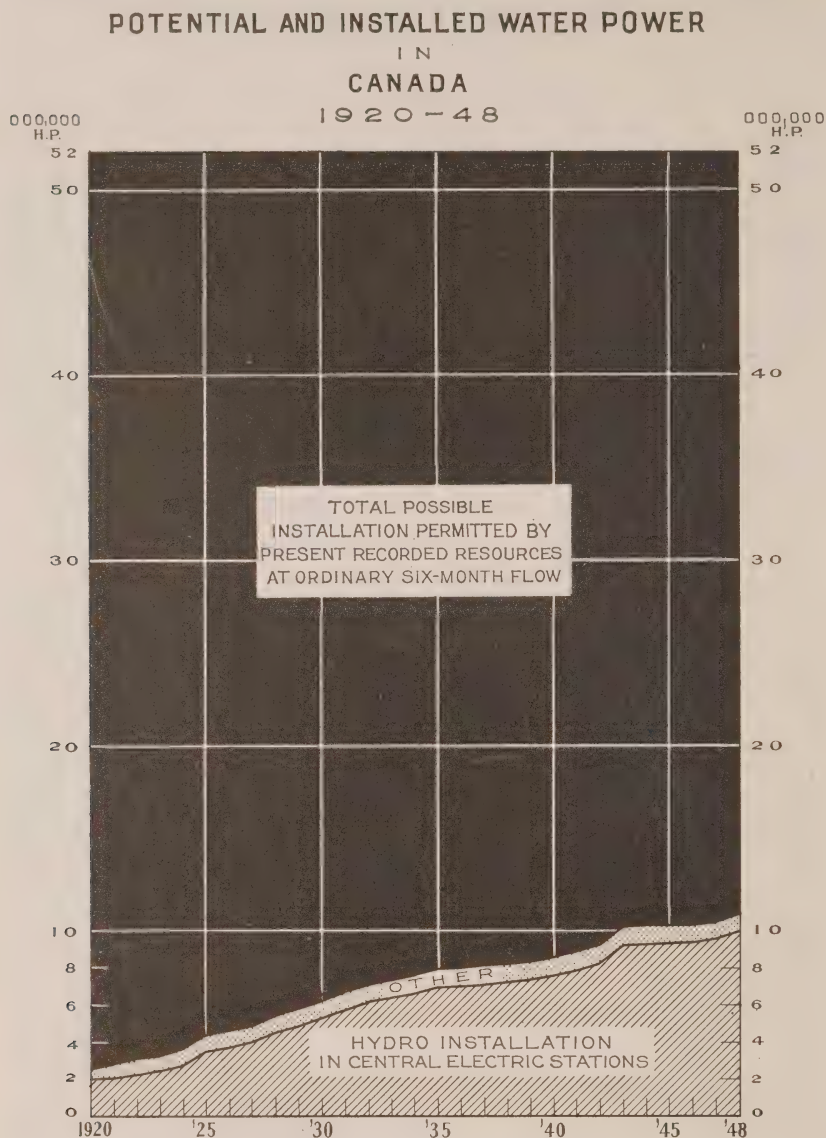
NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

## Section 1.—Water-Power Resources\*

Canada, a land of many lakes and rivers, has been abundantly endowed by nature with great water-power resources which are well distributed across the country. In most sections, adequate precipitation and favourable topography result in numerous rivers on which falls and rapids frequently occur and offer excellent opportunities for the development of hydraulic power; with the exception of the prairies of the middle west, water-power resources of importance are found in virtually every part of the country. In British Columbia, where precipitation is high, the rivers flowing down the Pacific slope of the Rocky Mountains offer many fine power sites. Alberta, although a Prairie Province, also has mountain streams from the Rockies as well as great reserves of undeveloped power on its large northern rivers. The great Canadian Shield of Precambrian rock, which forms an arc around Hudson Bay, covers part of the Northwest Territories and northern Saskatchewan as well as a large part of Manitoba, Ontario and Quebec; it is a rough, forest-covered, well-watered area characterized by innumerable lakes and fast-flowing rivers with many falls and rapids. The power of the Great Lakes-St. Lawrence River System forms part of the great resources of Ontario and Quebec upon which their status as the principal manufacturing provinces of Canada is built and which compensates in large degree for the lack of indigenous coal. In the Maritimes, the precipitation is moderately heavy and the rivers, while not large, afford numerous possibilities for power developments of moderate size. The water powers of the Province of Newfoundland, while of considerable extent, have not as yet been accurately evaluated owing to lack of stream-flow data.

\* Revised under the direction of H. L. Keenleyside, Deputy Minister, Department of Mines and Resources, by Norman Marr, Controller, Dominion Water and Power Bureau.





#### Subsection 1.—Water-Power Resources of Canada and Other Countries

The potential resources of the combined continents of Africa and Asia represent more than 64 p.c. of the world total, whereas the total development that has been made in these two continents is only slightly more than 14 p.c. of the development in the world at large. Enormous potential resources exist on the great river systems



of Africa and Asia but much of this potential power is located in the remote areas of non-industrial countries and is without present prospective markets; it is thus of little economic interest. This also applies to substantial resources that exist in parts of South America and Oceania.

Comparison between the water-power resources of Canada and those of other countries is rendered difficult by incomplete world statistics and differing bases of tabulation; only crude estimates of potential power are possible for many countries where resources are largely unexplored.

Table 1 compares the developed and potential resources of the continents of the world and also of those countries in which the development and utilization of water-power resources has progressed to a considerable extent.

### 1.—Developed and Potential Water-Power Resources of the World by Countries<sup>1</sup>

NOTE.—Countries with developed resources in excess of 500,000 h.p.

Country	Total Installed Capacity at Dec. 31, 1947	Potential Power at Ordinary Minimum Flow, 100 p.c. Efficiency	Country	Total Installed Capacity at Dec. 31, 1947	Potential Power at Ordinary Minimum Flow, 100 p.c. Efficiency
Continent	'000 h.p.	'000 h.p.	Country—concluded	'000 h.p.	'000 h.p.
Africa.....	368	274,000	Sweden.....	3,820	4,000
Asia.....	12,059	151,000	Norway.....	3,800	10,000
Europe.....	34,937	68,000	Switzerland.....	3,700	3,600
North America.....	35,849	84,000	Germany.....	2,600	2,000
Oceania.....	1,284	20,000	Union of Soviet Socialist Republics.....	2,242	78,000
South America.....	2,392	67,000	Austria.....	2,000	1,600
Country			Spain.....	1,980	5,700
United States.....	24,206	34,700	Korea.....	1,800	3,000
Canada.....	10,491	32,000	Brazil.....	1,520	28,000
Japan.....	8,600	7,200	Finland.....	820	2,500
Italy.....	6,250	6,000	India and Ceylon.....	767	39,000
France.....	6,100	6,000	New Zealand.....	670	2,000
			Mexico.....	646	8,500

<sup>1</sup> Figures from Geological Survey of the United States Department of the Interior.

Table 1 shows that Canada, among countries of the world, ranks second in developed power, being exceeded only by the United States. In potential power, Canada stands in fourth place among the countries listed; however, Canada's reserves of undeveloped power are on the whole more readily available to prospective markets than is the case in either the Union of Soviet Socialist Republics or India. Marketable potential power in Canada in 1949 was outranked only by that of the United States.

In comparing the estimates of potential power with those of developed power, and in estimating the proportion of a nation's water-power resources already developed, it should be noted that, at fully developed sites, the installed capacities are usually two or three times the size of the ordinary-minimum-flow potential power of the same sites. For example, it is estimated that under present hydraulic

practice, the water-power resources of Canada\* would allow an economic turbine installation of over 52,000,000 h.p. and that only about 21 p.c. of presently recorded resources has been developed.

Additional information regarding Canada's water-power resources is included in the 1940 Canada Year Book, pp. 353-364. An earlier comparison is made with the resources of other countries and an extensive review is given of problems connected with the development, distribution and merchandising of power in Canada.

### Subsection 2.—Development and Growth of Water Power in Canada

Although extensive utilization at present is being made of Canada's water-power resources, there are large reserves still available for development. The greater part of this undeveloped power lies in the more remote parts but a number of sites within economic transmission distance of existing centres of population have not been exploited as yet and existing power reserves not too distant should be sufficient to meet the prospective demand for some years at least.

The development from year to year of Canada's water-power resources is a good index of the country's industrial growth and of the change in its economic life since the beginning of the present century. In 1900, prior to the inception of long-distance transmission of electricity, Canada's economy was based largely on agriculture and the total of hydraulic installations, mostly small mills, was only 173,000 h.p. With the successful solution of the problems of transmission of electrical energy for use in distant communities, the development of large hydraulic projects became practicable and, by 1910, the total installation had risen to 977,000 h.p. In ensuing decades, the growth in installed capacity, partly speeded by war demands, proceeded at an accelerated rate so that by 1920 the total was 2,515,000 h.p.; by 1930, 6,125,000 h.p.; by 1940, 8,584,000 h.p.; and by the end of 1948, installed capacity had reached 10,870,718 h.p. Continued rapid growth during the next several years is indicated by plants now under construction or planned.

The availability of large amounts of hydro-electric energy from the water-power developments has so fostered the economic utilization of the natural products from land, mine and forest, that Canada has become highly industrialized and is now one of the more important manufacturing countries. Low-cost power from Canada's rivers is fundamental in meeting the enormous demands of its largest industry, pulp and paper manufacturing, which ranks as one of the world's great industrial enterprises; it also allows the economic mining, milling and refining of base and precious metals and facilitates their fabrication into a multitude of manufactured articles. The great hydro-electric undertakings, built to meet the domestic and industrial requirements of the country, were of incalculable value to Canada's participation in two world wars, particularly in the Second World War. Between 1939 and 1945, approximately 2,000,000 h.p. was added to water-power capacity, all of which was used for war production; great quantities of power were also diverted from normal to war purposes; this allowed Canada to produce materials and munitions of war on a very large scale proportionate to population.

From hydro-electric developments ranging in size from a few hundred to more than 1,000,000 h.p., networks of transmission lines carry power not only to most urban centres of Canada but also in increasing degree to the rural areas of the country. The wide distribution of power has facilitated the decentralization of

\* Not including the new province of Newfoundland which entered Confederation March 31, 1949.

industry in that manufacturing processes covering such items as foods, textiles and forest products are carried out in many of the smaller centres of population. Low-cost hydro-electricity has also contributed to a high standard of living in Canada. Economical domestic service is supplied and is rapidly being extended to homes in many rural communities and farms, as well as to those in most towns and cities.

With a total capacity of 10,870,718 h.p., present water-power plants in Canada, if operated at full load, would produce energy at a rate corresponding to the output of nearly 110,000,000 manual workers, on the commonly accepted basis of one mechanical horse-power equalling the working capacity of ten men.

Table 2 presents a summary of the water-power resources of Canada according to the records of the Dominion Water and Power Bureau as at Dec. 31, 1948. In the case of developed power, the figures for 1947 are listed for comparative purposes.

## 2.—Available and Developed Water Power, by Provinces, 1947 and 1948

Province or Territory	Available 24-Hour Power at 80 p.c. Efficiency, December, 1948		Turbine Installation	
	At Ordinary Minimum Flow	At Ordinary Six-Month Flow	Dec. 31, 1947	Dec. 31, 1948
	h. p.	h. p.	h. p.	h. p.
Prince Edward Island.....	3,000	5,300	2,617	2,617
Nova Scotia.....	20,800	128,300	133,384	140,884
New Brunswick.....	68,600	169,100	133,347	133,347
Quebec.....	8,459,000	13,064,000	5,878,872	5,939,697
Ontario.....	5,407,200	7,261,400	2,749,740	2,894,240
Manitoba.....	3,309,000	5,344,500	458,825	503,700
Saskatchewan.....	542,000	1,082,000	90,835	111,835
Alberta.....	507,800	1,258,000	106,560	106,560
British Columbia.....	7,023,000	10,998,000	917,024	1,009,769
Yukon and Northwest Territories.....	382,500	813,500	19,719	28,069
<b>Canada.....</b>	<b>25,722,900</b>	<b>40,124,100</b>	<b>10,490,923</b>	<b>10,870,718</b>

The figures listed in the first and second columns of Table 2 represent 24-hour power and are based upon rapids, falls and power sites of which the actual drop, or the head possible of concentration, has been measured or at least carefully estimated. Many unrecorded rapids and falls of undetermined power capacity exist on rivers and streams from coast to coast (particularly in the less-explored northern districts); these will become available for tabulation only as more detailed survey work is completed. Unless definite studies have been carried out and the results made matters of record, no consideration has been given to the power concentrations that are feasible on rivers and streams of gradual gradient, where economic heads possibly may be created by the construction of power dams. Thus with regard to possible sites, the listed figures of available power (under two conditions of stream flow) represent only the *minimum water-power possibilities of Canada*.

The third and fourth columns give the total capacity of the water wheels actually installed; these figures should not be placed in direct comparison with those in the first and second columns to deduce the percentage of the available water-power resources developed. At developed sites, the water-wheel installation averages 30 p.c. greater than the corresponding calculated maximum available power figures included in the second column and covering the same sites. The above figures,



therefore, indicate that the *at present recorded water-power resources* will permit of a turbine installation of more than 52,000,000 h.p.; also, the turbine installation at Dec. 31, 1948, represents roughly only 21 p.e. of recorded water-power resources.

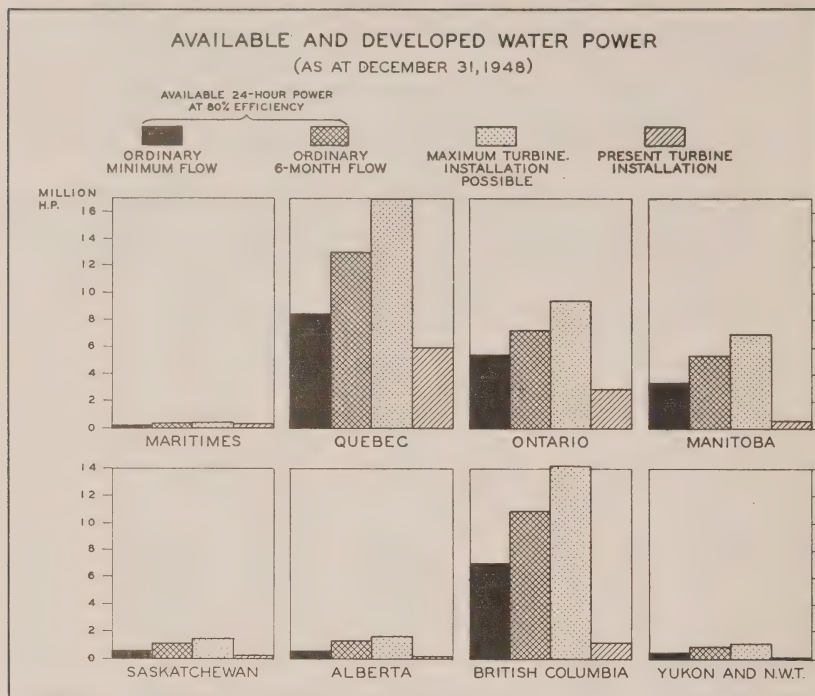


Table 3 shows clearly the consistent growth in capacity since the beginning of the century and the heavy increase in installation during the war years 1942 and 1943. During 1948 the great post-war activity in hydro-electric construction began to show results and more than 350,000 h.p. was added to the total capacity of the country; many other new plants and additions are under construction.

### 3.—Hydraulic Turbine Horse-Power Installed by Provinces, as at Dec. 31, Decennially 1900-40 and Annually 1941-48

NOTE.—Statistics for intervening years 1900-30 are given on p. 361 of the 1939 Year Book; for 1931-40 at p. 362 of the 1946 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada <sup>1</sup>
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.
1900...	1,521	19,810	4,601	82,864	53,876	1,000	—	280	9,366	173,323
1910...	1,760	31,476	11,197	334,763	490,821	38,800	30	655	64,474	977,171
1920...	2,233	37,623	21,976	955,090	1,057,422	85,325	35	33,122	309,534	2,515,559
1930...	2,439	114,224	133,681	2,718,130	2,088,055	311,925	42,035	70,532	630,792	6,125,012
1940...	2,617	139,217	133,347	4,320,943	2,597,595	420,925	90,835	71,997	788,763	8,584,438
1941...	2,617	139,217	133,347	4,556,943	2,617,495	420,925	90,835	71,997	788,763	8,845,038
1942...	2,617	143,717	133,347	4,839,543	2,684,395	420,925	90,835	94,997	792,563	9,225,838
1943...	2,617	133,384	133,347	5,847,322	2,673,443	422,825	90,835	94,997	796,024	10,214,513
1944...	2,617	133,384	133,347	5,848,572	2,673,443	422,825	90,835	94,997	864,024	10,283,763
1945...	2,617	133,384	133,347	5,848,572	2,673,290	422,825	90,835	94,997	864,024	10,283,610
1946...	2,617	133,384	133,347	5,848,572	2,679,740	446,825	90,835	93,060	864,024	10,312,123
1947...	2,617	133,384	133,347	5,878,872	2,749,740	458,825	90,835	106,560	917,024	10,490,923
1948...	2,617	140,884	133,347	5,939,697	2,894,240	503,700	111,835	106,560	1,009,769	10,870,718

<sup>1</sup> Includes Yukon and the Northwest Territories. A plant of 4,700 h.p. came into operation in the Northwest Territories in 1941 and one of 8,350 h.p. in 1948.



Table 4 has been prepared to show under three classifications the purposes for which the developed water power is primarily utilized.

#### 4.—Developed Water Power by Provinces and Industries, as at Dec. 31, 1948

Province or Territory	Turbine Installation			Total <sup>4</sup>
	In Central Electric Stations <sup>1</sup>	In Pulp and Paper Mills <sup>2</sup>	In Other Industries <sup>3</sup>	
	h.p.	h.p.	h.p.	h.p.
Prince Edward Island.....	579	—	2,038	2,617
Nova Scotia.....	115,039	11,884	13,961	140,884
New Brunswick.....	104,710	20,694	7,943	133,347
Quebec.....	5,584,787	271,521	83,389	5,939,697
Ontario.....	2,586,197	223,692	84,351	2,894,240
Manitoba.....	501,800	—	1,900	503,700
Saskatchewan.....	108,500	—	3,335	111,835
Alberta.....	104,500	—	2,060	106,560
British Columbia.....	822,062	130,950	56,757	1,009,769
Yukon and Northwest Territories.....	8,350	—	19,719	28,069
<b>Canada.....</b>	<b>9,936,524</b>	<b>658,741</b>	<b>275,453</b>	<b>10,870,718</b>
Percentages of total installation.....	91.4	6.1	2.5	100.0

<sup>1</sup> Includes only hydro-electric stations that develop power for sale. <sup>2</sup> Includes only water power *actually developed* by pulp and paper companies. <sup>3</sup> Includes only water power *actually developed* by industries other than central electric stations and the pulp and paper industries. <sup>4</sup> All water wheels and hydraulic turbines installed in Canada.

It may be noted that central electric station classification totalling 9,936,524 h.p. represents more than 91 p.c. of the total developed water power as at Dec. 31, 1948. In 1900 the corresponding percentage was 33.5, thus showing the tremendous growth in the central electric station industry since the inception of successful long-distance transmission of electricity. Central hydro-electric stations produced 97 p.c. of all electricity sold in or exported from Canada during 1948.

The pulp and paper turbine installation total of 658,741 h.p. shown in Table 4 includes only water power *actually developed* and directly used by pulp and paper companies. In addition, this industry is the greatest purchaser of central station power, buying about 33 p.c. of all power sold for industrial purposes. Part of the purchased power is classed as secondary, being used for steam generation by electric boilers which in 1948 had a capacity of about 1,900,000 h.p. The motor installations for the use of primary purchased power aggregate approximately 1,625,000 h.p.

The 'other industries' group of Table 4, column 3, develops 275,453 h.p. solely for its own use. These diversified industries also provide a broad market for the power sold by the central electric stations.

The figure of total hydraulic installation in Canada, 10,870,718 h.p., is the cumulative total of installation for all water wheels and hydraulic turbines. It has been adjusted to Dec. 31, 1948, by the addition of any installations made during the year even though this equipment may not be in use; adjustments are also made covering turbines or water wheels that have been removed. Somewhat similar figures are reported by the annual Census of Industry: they differ slightly since they are compiled on a different basis and represent only the sum of the installations in the plants actually in operation during the year being reported by the Census, not total installation.

### Subsection 3.—Provincial Water-Power Developments, 1948

During 1948, the construction of hydro-electric developments throughout Canada proceeded at high tempo, although some delays were experienced due to late deliveries of electrical and mechanical equipment and to shortages of some materials. New capacity coming into operation in 1948 totalled 440,095 h.p.,\* the rate of expansion well exceeding the yearly pre-war average of about 300,000 h.p. However, a huge demand for electric energy not only readily absorbed the output of new plants but accelerated the greatest program of hydro-electric expansion in the history of the country. Plants under construction, which are expected to be completed or in partial operation within two years, will have a capacity of about 1,000,000 h.p. while those on which preliminary construction has been started, or which are definitely planned, will add perhaps 2,000,000 h.p. within five years. In addition, long-range plans envisage the development of many other sites which have been under investigation, a number of them being of high capacity. Current progress in each province is outlined below.

*Maritime Provinces.*†—In the Maritime Provinces, the Nova Scotia Power Commission brought into operation in 1948 a new plant on Dickie Brook with a capacity of 2,900 h.p. in two units; a third unit of 3,000 h.p. is planned. The Commission also had under construction a plant of 12,000 h.p. on the Mersey River and was planning the development of 4,800 h.p. on the Tusket River. The Nova Scotia Light and Power Company completed a development of 4,600 h.p. on Methalls Brook and is proceeding with an addition of 4,500 h.p. to its Black River Plant.

*Quebec.*—In Quebec, new units coming into operation in 1948 had a total capacity of 118,000 h.p. The Quebec Hydro-Electric Commission completed the fourteenth unit of 53,000 h.p. in its No. 1 Beauharnois Plant, St. Lawrence River, and began work on No. 2 power-house which will have an ultimate capacity of 600,000 h.p. and will be in partial operation by 1951; the Commission also completed a storage dam at Lake Dozois, upper Ottawa River and a fourth unit of 16,000 h.p. was being installed in the Rapid VII Plant. The Shawinigan Water and Power Company brought into operation the first unit of 65,000 h.p. in its new development of 195,000 h.p. at Shawinigan Falls, St. Maurice River; the Company also began a development at La Trenché Rapids, upper St. Maurice River, which will have an ultimate capacity of 384,000 h.p., partial operation being scheduled for 1951. The Gatineau Power Company proceeded with the addition of the third and final unit of 27,000 h.p. in its Bryson Plant, Ottawa River. The Northern Quebec Power Company started to increase the capacity of its existing 40,000-h.p. development at Quinze River by raising the head 20 feet and installing a new unit of 34,500 h.p. for operation in 1950; the planned ultimate capacity is 119,000 h.p. Smaller projects under way include additions of 3,000 h.p. by Pembroke Electric Light Company to its Black River Plant, 3,200 h.p. by Ogilvie Flour Mills to its plant on the Lachine Canal, 4,200 h.p. by the Municipality of Jonquière on Aux Sables River, and 2,640 h.p. by the Cie Électrique de Mont Laurier on the Lièvre River.

\* This figure is somewhat larger than that indicated in Table 3. This is due to the fact that the net figures of Table 3 take into account installations that went out of use in 1948 and adjustment of totals.

† In addition to the water-power developments described, several new fuel-electric plants were under construction including: a steam plant of 10,000 kw. at Cantleys Point, N.S., by N.S. Power Commission; additional capacity of 20,000 kw. at Halifax by N.S. Light and Power Company; a 15,000-kw. plant at Maccan, N.S., by Canada Electric Company; and a 18,000 kw. plant by Seaboard Power Corporation in Cape Breton. The New Brunswick Electric Power Commission during 1948 completed an addition of 12,500 kw. to its steam plant at Chatham, N.B., and added four new diesel plants to its system.

*Ontario.*—The Hydro-Electric Power Commission of Ontario added to its generating capacity a total of 142,000 h.p. in three plants; 81,000 h.p. in the new Stewartville plant on the Madawaska River, 53,500 h.p. in the new Aguasabon plant on the north shore of Lake Superior, and a fourth unit of 7,500 h.p. in the Ear Falls plant, English River. The Commission also had under construction, on the Ottawa River above Pembroke, the Des Joachims development, 480,000 h.p. in eight units, five of which will be in operation in 1950; the Chenaux development on the Ottawa River at Portage du Fort, 160,000 h.p. in eight units, initial operation being scheduled for 1951; and the La Cave development, on the Ottawa River above Mattawa, 240,000 h.p., to be tentatively in service in 1952; Pine Portage development, Nipigon River, ultimate capacity 160,000 h.p. in four units, of which two are expected to be in operation in 1950; Tunnel Development, Mississagi River, 58,000 h.p., planned for 1950 operation; and a steam-electric generating station at Windsor, 161,000 h.p., for operation by the autumn of 1951. Other projects were under study by the Commission including developments on the St. Lawrence, Niagara and English Rivers and a steam plant in the Toronto area. Two smaller hydraulic projects were completed in the Province, 1,200 h.p. on the Muskoka River by the town of Bracebridge and 1,300 h.p. on the Rideau Canal system by the Gananoque Electric Light and Water Supply Company.

*The Prairie Provinces.*—In Manitoba, the Winnipeg Hydro-Electric System completed the installation of the eighth and final unit of 12,000 h.p. in its Slave Falls plant, Winnipeg River. The Winnipeg Electric Company continued work at its Seven Sisters plant, Winnipeg River, towards raising the head and the installation of a fourth unit of 37,500 h.p. The Manitoba Government has undertaken the development of 114,000 h.p. at Pine Falls, Winnipeg River, and plans to have the plant in initial operation in 1951.

In Saskatchewan, the Churchill River\* Power Company during 1948 completed the installation of a sixth unit of 21,000 h.p. in its Island Falls plant, bringing the total capacity to 108,500 h.p.\*

In Alberta, no new hydraulic developments were actively underway in 1948 but Calgary Power Limited was preparing to proceed with a development of 65,000 h.p. at Spray Lakes in the upper Bow River basin.

*British Columbia.*—In British Columbia, a total of 92,745 h.p. was added to the hydraulic capacity of the Province during 1948. The largest individual addition was that of the first unit of 62,000 h.p. in the Bridge River plant of the British Columbia Electric Railway Company which was brought into operation in October; the plant is designed for an ultimate installation of 10 units. A storage dam was under construction at La Joie Falls, 45 miles upstream. The British Columbia Power Commission, early in 1948, brought into operation the second unit of 28,000 h.p. in its Campbell River development, Vancouver Island, and work proceeded on the installation of the third and fourth units and on the construction of a storage dam at Ladore Falls. The Commission also has under construction a development at Whatshan Lake which will have an ultimate capacity of 60,000 h.p., initial operation being scheduled for 1950. The Consolidated Mining and Smelting Company was enlarging its Brilliant plant, Kootenay River, by the addition of a third unit of 37,000 h.p. Other smaller projects completed in 1948 include 1,600 h.p. on the

\* In addition to the water-power developments described, the Saskatchewan Power Commission increased the capacity of its steam plants by 7,500 kw. at Prince Albert and by 5,000 kw. at Estevan. Canadian Utilities completed a new steam plant of 13,500 kw. at Drumheller, Alta.



Kitzault River by Torbrit Silver Mines, 800 h.p. added to the Goat River plant of the West Kootenay Power and Light Company and a new 250-h.p. plant on Trout Lake by the Harrison Hot Springs Hotel.

*Northwest Territories.*—The Northwest Territories Power Commission was established under authority of the Northwest Territories Power Commission Act, 1948 (11-12 George VI, c. 64). The purpose of the Act is to facilitate the construction and operation of electric power plants in the Northwest Territories for mining and other interests. Power from such plants is sold at as low a rate as possible, subject to them being on a self-sustaining basis from the standpoint of interest and amortization charges, operation, and maintenance. The Act permits the development of the electric power resources of the Northwest Territories promptly when the need arises, and makes it possible for mining companies to expedite production.

The Power Commission owns and operates under Federal Government auspices the hydro-electric plant on Snare River, some 90 miles north of Yellowknife, N.W.T. This project has an installed capacity of 8,350 h.p. and can generate as much as 9,000 h.p. Electric power is carried by a 90-mile transmission line from the generating plant on Snare River to the vicinity of Yellowknife, where it supplies power to the local mines and also the greater part of the requirement of the Yellowknife Power Company, which distributes and sells power to the Yellowknife Settlement.

The Commission is constructing a diesel generating plant at Fort Smith, N.W.T., and is investigating a similar type of plant for installation at Hay River, on the south shore of Great Slave Lake. The Commission is also undertaking investigations of a possible hydro-electric plant on the Mayo River, Yukon Territory, for the benefit of the silver-lead mines in the Mayo District. It keeps in touch with power needs in northern Canada, and is authorized under the Act to make investigations, construct power plants, and sell power either on a wholesale or retail basis.

## Section 2.—The Central Electric Station Industry

An article dealing with government control of power in wartime is given at pp. 336-337 of the 1945 Canada Year Book.

**Summary of Energy Generated by Type of Station, 1946 and 1947.**—Central electric stations are companies, municipalities or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. Stations are divided into two classes according to ownership, viz., (1) commercial—those privately owned and operated by companies or individuals, and (2) municipal—those owned and operated by municipalities or Provincial Governments. These are subdivided according to the kind of power used into (a) hydraulic, (b) fuel, and (c) non-generating. This last sub-class purchases practically all the power it resells; a few of these stations have generating equipment that is held for emergencies. The hydraulic stations contain water turbines and wheels with approximately 88 p.c. of the total capacity of hydraulic installations in all industries in Canada and the generators driven by this hydraulic equipment generate 98 p.c. of the total output of all central electric stations.



**5.—Electric Energy Generated, by Type of Station, 1930-45, and by Provinces, 1946 and 1947**

Year	Generated by—		Total	Year and Province	Generated by—		Total
	Water Power	Thermal Engines			Water Power	Thermal Engines	
	'000 kwh.	'000 kwh.	'000 kwh.		'000 kwh.	'000 kwh.	'000 kwh.
				<b>1946</b>			
1930.....	17,748,820	344,982	18,093,802	P.E.I.....	513	16,189	16,702
1931.....	16,025,334	305,533	16,330,867	N.S.....	340,941	249,551	590,492
1932.....	15,723,838	328,219	16,052,057	N.B.....	444,793	148,130	592,923
1933.....	17,006,069	332,921	17,338,990	Que.....	23,589,563	7,758	23,597,321
1934.....	20,817,309	379,815	21,197,124	Ont.....	10,771,742	6,393	10,778,135
1935.....	22,883,735	399,298	23,283,033	Man.....	2,386,339	3,036	2,389,375
1936.....	24,932,705	469,577	25,402,282	Sask.....	—	270,691	270,691
1937.....	27,175,722	511,923	27,687,645	Alta.....	357,056	244,992	602,048
1938.....	25,690,785	463,375	26,154,160	B.C. <sup>1</sup> .....	2,801,448	97,852	2,899,300
1939.....	27,836,691	501,339	28,338,030	<b>Totals, 1946.</b>	<b>40,692,395</b>	<b>1,044,592</b>	<b>41,736,987</b>
1940.....	29,537,459	571,824	30,109,283	<b>1947</b>			
1941.....	32,628,930	688,733	33,317,663	P.E.I.....	556	19,826	20,382
1942.....	36,582,953	772,226	37,355,179	N.S.....	349,403	267,708	617,111
1943.....	39,660,312	819,281	40,479,593	N.B.....	420,510	171,948	592,458
1944.....	39,553,352	1,045,427	40,598,779	Que.....	25,926,927	3,244	25,930,171
1945.....	39,131,020	999,034	40,130,054	Ont.....	11,182,693	9,000	11,191,693
				Man.....	2,028,541	3,213	2,031,754
				Sask.....	463,059	299,823	762,882
				Alta.....	380,569	260,762	641,331
				B.C. <sup>1</sup> .....	1,520,909	116,108	1,637,017
				<b>Totals, 1947.</b>	<b>42,273,167</b>	<b>1,151,632</b>	<b>43,424,799</b>

<sup>1</sup> Includes Yukon.

**Subsection 1.—Statistics of Central Electric Stations\***

The growth of the central electric stations industry has been almost continuous since 1919, when statistics of kilowatt hours generated were first made available. The depression that occurred in the early 1930's resulted in decreased output of power for several years but output soon recovered. During the war years 1939-44 the equipment was used to the practical maximum capacity, the output increasing by 42 p.c. from 1938 to 1944. The output declined slightly in 1945 but rebounded in 1946 to 102 p.c. of the 1944 figure. During 1947 a new record was established which was nearly equalled in 1948.

The central electric stations industry is one that is particularly suited to large-scale operations because of the huge outlays of capital necessary. Capital invested and total horse-power installed increased almost continuously even during the depression years, mainly because large power projects, planned before the depression, were in process of construction. Off-peak and surplus power, used mainly in electric boilers of pulp and paper plants, grew steadily to a peak of 7,803,000,000 kwh. in 1937 but, owing to war requirements for firm power, it was reduced during 1940-45, but rebounded to a new high of 8,067,489,000 kwh. in 1946. In 1947, secondary power consumption was reduced to 5,595,344,000 kwh. and to 2,303,987,000 kwh. in 1948 as increased primary demand and low water levels left less available for off-peak use.

\* Revised in the Transportation Division, Dominion Bureau of Statistics.

**6.—Summary Statistics of Central Electric Stations, 1932-47**

NOTE.—Figures for the years 1917-31 will be found at p. 369 of the 1940 Year Book.

Year	Stations	Capital Invested	Revenue from Sale of Power <sup>1</sup>	Power Equipment Capacity <sup>2</sup>	Kilowatt Hours Generated	Customers	Persons Employed	Salaries and Wages
	No.	\$	\$	h.p.	'000	No.	No.	\$
1932.....	572	1,335,886,987	121,212,679	6,343,654	16,052,057	1,657,454	15,395	23,261,166
1933.....	575	1,386,532,055	117,532,081	6,616,006	17,338,990	1,666,882	14,717	21,431,877
1934.....	573	1,430,852,166	124,463,613	6,854,161	21,197,124	1,660,079	14,974	21,829,491
1935.....	566	1,459,821,168	127,177,954	7,104,142	23,283,033	1,694,703	15,342	22,519,993
1936.....	561	1,483,116,649	135,865,173	7,119,272	25,402,282	1,740,793	16,087	23,367,091
1937.....	568	1,497,330,231	143,546,643	7,342,085	27,687,645	1,805,995	17,018	25,623,767
1938.....	589	1,545,416,592	144,331,627	7,476,976	26,154,160	1,873,621	17,929	27,148,688
1939.....	611	1,564,603,211	151,880,969	7,607,122	28,338,030	1,941,663	18,848	28,223,376
1940.....	602	1,615,438,140	166,228,773	7,935,867	30,109,283	2,006,508	19,054	28,895,595
1941.....	607	1,641,460,451	186,080,354	8,157,585	33,317,663	2,081,270	19,880	31,647,952
1942.....	616	1,747,891,798	203,914,608	8,613,696	37,355,179	2,125,558	19,764	34,285,870
1943.....	622	1,778,224,640	204,801,508	9,602,794	40,479,593	2,169,148	19,120	35,785,932
1944.....	626	..	215,246,391	9,713,791	40,598,779	2,238,023	19,770	36,945,296
1945.....	600	..	215,105,473	9,666,947	40,130,054	2,333,230	21,283	39,521,365
1946.....	600	..	226,096,273	9,825,459	41,736,987	2,476,830	24,577	46,422,998
1947.....	607	..	238,929,627	9,601,157	43,424,799	2,643,327	26,704	67,417,317

<sup>1</sup> Excluding duplications.<sup>2</sup> Not including auxiliary-plant equipment.

Although the amount of power used by domestic customers or for residential purposes is now only 10 p.c. of the total production of central electric stations, this service is exceedingly important. Details of the number of domestic customers served, the kilowatt hours delivered and the costs to the customers, exclusive of direct federal, provincial and municipal taxes on such service, are shown in Table 7. The average consumption per customer and average cost per kilowatt hour vary considerably as between municipalities and also as between provinces; there are smaller differences between the average bills.

**7.—Summary Statistics of Domestic Consumption of Electricity, 1932-47**

Year	Customers	Consumption	Average Consumption per Customer	Average Charge per Annum	Average per kwh.
	No.	'000 kwh.	kwh.	\$	cts.
1932.....	1,357,462	1,639,498	1,208	26.83	2.22
1933.....	1,371,806	1,650,395	1,203	26.21	2.18
1934.....	1,379,153	1,717,090	1,245	26.47	2.13
1935.....	1,401,983	1,769,848	1,262	26.23	2.08
1936.....	1,443,059	1,887,116	1,308	26.61	2.03
1937.....	1,500,128	2,007,433	1,338	26.17	1.96
1938.....	1,559,394	2,172,500	1,393	26.49	1.90
1939.....	1,623,672	2,310,891	1,423	26.97	1.90
1940.....	1,694,388	2,436,572	1,438	27.41	1.91
1941.....	1,755,917	2,582,405	1,471	27.73	1.89
1942.....	1,803,708	2,716,895	1,506	28.11	1.80
1943.....	1,852,367	2,843,612	1,535	27.70	1.87
1944.....	1,906,452	3,046,980	1,598	27.96	1.75
1945.....	1,987,360	3,365,497	1,693	28.05	1.66
1946.....	2,104,549	3,881,677	1,844	29.85	1.62
1947.....	2,246,253	4,383,222	1,951	31.28	1.60

**Equipment of Central Electric Stations.**—Auxiliary equipment includes only thermal engines and generators operated by them in hydraulic stations and in non-generating plants and does not include spare equipment in thermal stations or

spare hydraulic equipment in hydraulic stations. Such equipment is classed as main-plant equipment. The capacities of the equipment are the manufacturers' ratings and, for water wheels and turbines, the kilowatt hour capacities vary with the supply of water. The majority of the hydraulic stations are large, serving wide areas over transmission lines, whereas most of the plants with thermal engines are small, serving the needs of the local municipality. The number of thermal engines declined from previous years as equipment data were not included for small plants, mainly in Saskatchewan and Alberta, whose output was largely consumed by their own industry or firm.

### 8.—Main-Plant Equipment of Central Electric Stations, by Provinces, and Total Auxiliary Equipment, 1947

NOTE.—Kva. means kilo-volt-amperes.

Type of Equipment and Province	Power Plants	Water Wheels and Turbines			Thermal Engines			Generators		
		No.	Capacity	Average Capacity	No.	Capacity	Average Capacity	No.	Capacity	Average Capacity
	No.		h.p.	h.p.		h.p.	h.p.		kva.	kva.
<b>MAIN-PLANT EQUIPMENT</b>										
P.E.I. ....	9	6	363	61	19	8,937	470	22	6,997	318
N.S. ....	45	55	106,658	1,939	38	98,044	2,580	93	170,681	1,835
N.B. ....	14	14	104,260	7,447	17	57,812	3,401	31	138,366	4,463
Que. ....	95	280	5,424,600	19,374	5	660	132	286	4,597,773	16,076
Ont. ....	120	311	2,425,363	7,799	9	1,140	127	320	1,934,447	6,045
Man. ....	14	40	442,800	11,070	11	1,688	153	50	357,063	7,141
Sask. ....	134	5	87,500	17,500	189	176,109	932	196	221,657	1,131
Alta. ....	95	10	104,500	10,450	126	107,098	850	133	176,911	1,330
B.C. and Yukon. ....	81	67	435,806	6,505	58	17,819	307	124	380,593	3,069
<b>Totals. ....</b>	<b>607</b>	<b>788</b>	<b>9,131,850</b>	<b>11,589</b>	<b>472</b>	<b>469,307</b>	<b>994</b>	<b>1,255</b>	<b>7,984,488</b>	<b>6,362</b>
<b>AUXILIARY-PLANT EQUIPMENT</b>										
	—	—	—	—	98	184,930	1,887	92	154,199	1,676
<b>Grand Totals. ....</b>	<b>607</b>	<b>788</b>	<b>9,131,850</b>	<b>11,589</b>	<b>570</b>	<b>654,237</b>	<b>1,148</b>	<b>1,347</b>	<b>8,138,687</b>	<b>6,042</b>

### 9.—Electric Energy Generated in Central Electric Stations, by Provinces, 1942-47

Province or Territory	1942	1943	1944	1945	1946	1947
	'000 kwh.	'000 kwh.	'000 kwh.	'000 kwh.	'000 kwh.	'000 kwh.
Prince Edward Island. ....	13,096	14,616	15,968	16,753	16,702	20,382
Nova Scotia. ....	516,828	579,470	582,589	600,429	590,492	617,111
New Brunswick. ....	489,469	506,134	521,951	598,700	592,923	592,458
Quebec. ....	20,803,715	23,477,824	23,277,515	22,227,012	23,597,321	25,930,171
Ontario. ....	10,181,711	10,308,673	10,538,574	10,736,742	10,778,135	11,191,693
Manitoba. ....	2,080,810	2,223,725	2,232,855	2,283,789	2,389,375	2,031,754
Saskatchewan. ....	211,557	232,195	243,884	249,517	270,691	762,882
Alberta. ....	418,704	512,985	555,034	566,745	602,048	641,331
British Columbia and Yukon	2,639,289	2,623,971	2,630,409	2,850,367	2,899,300	1,637,017
<b>Totals. ....</b>	<b>37,355,179</b>	<b>40,479,593</b>	<b>40,598,779</b>	<b>40,130,054</b>	<b>41,736,987</b>	<b>43,424,799</b>

**Farm Service Furnished by Central Electric Stations.**—Table 10 shows the number of farm customers, the average annual consumption, average annual revenue exclusive of the 8 p.c. federal tax, and the average revenue per kilowatt hour sold to these customers in each province for 1947.



Effective Jan. 1, 1944, the Ontario Hydro-Electric Power Commission reclassified its rural customers, including under "farm customers" only farm contracts whereby one or more dwellings occupied by families engaged in the operation of the farm would be counted as one customer. This classification excluded other rural dwellings, stores, garages, repair shops, etc., also small properties of five acres or less except under special conditions. This change in classification explains the apparent decrease in farms served as shown in previous years, but by 1947 there were 81,670 farm customers in Ontario compared with 62,303 in 1944 and 66,686 on the farmer basis in 1943. The Ontario Government pays for part of the cost of installing services to farm customers, which accounts in part for the lower average revenue per kilowatt hour in Ontario as compared with the other provinces.

#### 10.—Farm Service Furnished by Central Electric Stations, 1947

Province or Territory	Customers	Kilowatt Hours Delivered		Revenue Received		
		Total	Average per Customer	Total	Average per Customer	Average per kwh.
	No.	No.	No.	\$	\$	cts.
Prince Edward Island.....	2,822	2,204,692	781	138,833	49.20	6.3
Nova Scotia.....	11,454	7,406,572	647	300,668	26.25	4.1
New Brunswick.....	7,949	4,452,800	560	243,897	30.68	5.5
Quebec.....	54,245	38,246,833	705	1,338,379	24.67	3.5
Ontario.....	81,670	212,496,914	2,602	3,622,389	44.35	1.7
Manitoba.....	3,496	5,866,434	1,678	210,121	60.10	3.6
Saskatchewan.....	739	665,037	900	52,151	70.57	7.8
Alberta.....	2,275	3,844,386	1,690	214,435	94.26	5.6
British Columbia and Yukon	4,868	10,569,439	2,171	275,783	56.65	2.6
<b>Totals.....</b>	<b>169,518</b>	<b>285,753,107</b>	<b>1,686</b>	<b>6,396,656</b>	<b>37.73</b>	<b>2.2</b>

**Export and Import of Electric Power.**—Electric energy is exported from Canada only under licence and an export tax of 0.03 cents per kilowatt hour is levied with some exceptions. The export duties for the fiscal years ended Mar. 31, 1945 to 1948 were \$639,320, \$694,518, \$598,751 and \$470,627, respectively.

Exports for the years 1945-48 are shown in Table 11. There are also large interprovincial movements of electric energy from Quebec to Ontario, and smaller movements from Quebec to New Brunswick, Manitoba to Ontario and British Columbia to Alberta.

The water allowed to be diverted at Niagara Falls for power purposes was increased by 5,000 cu. ft. per second to the Canadian side in November, 1940, owing to a diversion of water from Long Lake and the Ogoki River from the James Bay watershed to the Great Lakes watershed. In 1941 a further increase of 9,000 c.f.s. to the Canadian plants and 12,500 c.f.s. to the United States plants was permitted, and in 1943 an additional 4,000 c.f.s. to Canadian plants bringing the totals up to 54,000 c.f.s. for Canada, and 32,500 c.f.s. for the United States. This increased water with greater development of plants on the St. Lawrence River made possible the increased export of both firm and secondary power to the United States (5,000 c.f.s. will produce about 150,000 h.p. at the Queenston, Ont., plant). During 1947 and 1948, increased demands from consumers and low water reduced the surplus energy available for export.



### 11.—Electric Energy Exported from Canada, by Companies, and Imported from the United States, 1945-48

Company	1945	1946	1947	1948
	kwh.	kwh.	kwh.	kwh.
Hydro-Electric Power Commission of Ontario	394,245,000	394,200,000	391,102,400	380,703,700
Hydro-Electric Power Commission of Ontario (surplus).....	1,120,730,061	978,819,549	553,054,300	231,290,500
Canadian Niagara Power Company.....	322,722,441	324,484,986	321,725,500	324,999,600
Canadian Niagara Power Company (surplus).....	99,409,843	93,806,074	71,269,622	73,190,585
Ontario and Minnesota Power Co.....	38,365,000	32,073,000	48,429,000	30,225,000
Maine and New Brunswick Electric Power Co.	40,384,249	32,185,886	31,747,662	24,530,080
Maine and N.B. Electric Power Co. (surplus).....	—	1,690,473	3,191,284	1,840,573
British Columbia Electric Railway Co.....	273,050	323,260	408,630	14,208,466
Southern Canada Power Co.....	2,462,695	2,703,079	4,289,825	2,247,418
Quebec Hydro-Electric Commission <sup>1</sup> .....	618,842,478	614,992,847	634,475,609	650,290,533
Canadian Cottons, Ltd., Milltown, N.B.....	2,708,400	2,868,000	422,400	60,480
Fraser Companies, Ltd.....	4,574,000	1,288,000	4,169,000	0,121,000
Northport Power and Light Co.....	15,206	20,619	33,210	38,284
Northern B.C. Power Co.....	12,170	33,120	35,410	35,650
Detroit and Windsor Subway Co.....	291,800	328,100	325,400	326,900
Manitoba Power Commission.....	1,398,840	1,813,740	1,809,600	—
<b>Totals.....</b>	<b>2,646,435,233</b>	<b>2,481,630,733</b>	<b>2,066,486,852</b>	<b>1,743,108,769</b>
<b>Imports from United States<sup>2</sup>.....</b>	<b>15,916,000</b>	<b>8,651,000</b>	<b>51,979,000</b>	<b>84,994,000<sup>p</sup></b>

<sup>1</sup> Transferred from the Montreal Light, Heat and Power Co., April, 1944.

<sup>2</sup> Mainly to B.C. Electric.

### Subsection 2. — Public Ownership or Regulation of Central Electric Stations\*

Water power is developed in Canada by provincial commissions, by municipalities and by private companies—hydro-electric plants. The first such provincial commission was formed in Ontario in 1906 to act as trustee for a group of municipalities to develop and distribute electricity. The Hydro-Electric Power Commission of Ontario now generates and purchases power, transmits it to rural and urban municipalities and serves large power customers. Similar commissions have been formed in most of the other provinces.

\* The information included under the provincial headings of this Subsection has been revised by the various provincial commissions or authorities concerned.

### 12.—Summary Statistics of Publicly Owned Central Electric Stations, 1930-47

Year	Power Plants	Customers	Electric Energy Generated	Power Equipment	
				Water Wheels and Turbines	Total
	No.	No.	'000 kwh.	h.p.	h.p.
1930.....	166	862,158	5,156,788	1,454,014	1,658,087
1931.....	163	874,507	4,139,707	1,505,599	1,719,495
1932.....	170	881,054	3,713,841	1,610,024	1,824,010
1933.....	172	890,301	3,673,016	1,742,024	1,966,889
1934.....	171	899,617	5,136,241	1,743,074	1,963,979
1935.....	169	915,303	5,515,084	1,815,164	2,036,799
1936.....	171	938,117	6,887,057	1,944,189	2,173,030
1937.....	179	972,284	7,372,018	1,975,989	2,202,624
1938.....	183	1,014,115	6,665,837	2,013,169	2,176,793
1939.....	184	1,052,245	7,047,100	2,014,500	2,221,490
1940.....	181	1,088,415	7,822,013	2,022,285	2,227,203
1941.....	183	1,126,364	8,523,915	2,031,250	2,240,425
1942.....	188	1,140,499	9,177,792	2,134,845	2,344,310
1943.....	197	1,159,545	9,397,354	2,135,395	2,362,858
1944.....	202	1,484,784	14,910,198	3,092,295	3,340,268
1945.....	208	1,566,676	14,599,195	3,118,324	3,372,826
1946.....	203	1,650,739	14,739,271	3,274,484	3,523,463
1947.....	230	1,772,919	15,759,275	3,380,900	3,665,032

A large portion of the power development in Quebec is connected with pulp and paper plants and with the aluminum industry. Such power plants are operated as separate organizations and deliver power to the parent companies at relatively low rates. Also, substantial blocks of power are produced in Quebec for export to Ontario.

Table 13 shows statistics of municipally or publicly owned central electric stations, by provinces, for 1946. Table 24 at p. 582 shows comparable statistics for commercial stations.

**13.—Publicly Owned Central Electric Stations, by Provinces, 1947**

Province or Territory	Power Plants	Customers	Electric Energy Generated	Power Equipment	
				Water Wheels and Turbines	Total
	No.	No.	'000 kwh.	h.p.	h.p.
Prince Edward Island.....	1	1,680	3,714	—	1,785
Nova Scotia.....	27	38,515	266,823	80,780	88,555
New Brunswick.....	7	54,651	153,998	12,860	41,132
Quebec.....	22	367,076	5,149,967	1,032,060	1,032,240
Ontario.....	75	984,126	8,917,437	2,030,066	2,030,891
Manitoba.....	6	104,344	752,466	177,000	177,640
Saskatchewan.....	54	85,744	242,745	—	142,800
Alberta.....	10	82,282	209,389	—	92,091
British Columbia and Yukon.....	28	54,501	62,736	48,134	57,893
<b>Totals.....</b>	<b>230</b>	<b>1,772,919</b>	<b>15,759,275</b>	<b>3,350,900</b>	<b>3,665,032</b>

Because of the absence of free market determination of prices and regulation of services in an industry that is semi-monopolistic, regulation of electrical utilities has been attempted in most provinces. The governing bodies of the provincial electric power commissions, their functions and activities are summarized by provinces below.

**Nova Scotia.**—In 1909 legislation was first enacted in Nova Scotia relating to the use of water power in "An Act for the Further Assisting of the Gold Mining Industry". This was the most advanced legislation until the development of water power within the Province of Nova Scotia was initiated under the Acts of 1914 and carried on in an investigatory manner in co-operation with the Federal Government until 1919, when the Nova Scotia Power Commission was created under the Power Commission Act. Certain investigatory work is still carried on in Nova Scotia by the Federal Government through the Dominion Water and Power Bureau with which The Nova Scotia Power Commission is closely associated. The control of the water resources of the Province is vested in the Crown and administered under the provisions of The Nova Scotia Water Act of 1919. The Commission pays the regular fees for water rights.

The function and policy of the Commission is the supply of electric power and energy by the most economical means available. The Rural Electrification Act of 1937 greatly increased the possibilities for retail service. It provides for financial assistance to equalize cost and revenue of extensions, the construction of which have been approved by the Governor in Council as qualifying under the Act. In 1941, an amendment to the Power Commission Act authorized the Commission, subject to the approval of the Governor in Council, to regulate and control the generation, transformation, transmission, distribution, supply and use of power in the Province.

Financially, the Commission is self-supporting, repaying borrowings from revenue. The balance sheet at Nov. 30, 1948, showed total fixed assets of \$22,686,803, including work in progress amounting to \$734,742. Current assets amounted to \$273,294. Liabilities are shown as follows: fixed \$17,998,783; current \$576,479; contingency and renewal reserves \$2,472,575; sinking fund reserves \$3,597,246, and general and special reserves \$1,689,666.

The initial development of the Commission was an 800-h.p. installation on the Mushamush River, which went into operation in 1921 and delivered 192,000 kwh. in the first complete year of operation. This and later developments are shown in Table 14.

**14.—Present Developments with Initial Capacities of Undertakings of the Nova Scotia Power Commission**

Hydro Systems	First Year of Operation	Installed Capacity		Annual Output Generation	
		Initial	1948	Initial	1948
		h. p.	h. p.	kwh.	kwh.
Mushamush.....	1921	800	1,030	208,752	1,197,100
St. Margaret.....	1922	10,700	15,700	19,538,000	31,039,600
Sheet Harbour—					
Malay Falls.....	1924	5,550	5,550	6,536,860	45,380,767
Ruth Falls.....	1925	6,290	10,590		
Mersey—					
Original.....	1928	29,400	29,400	85,863,390	155,717,600
Cowie Falls.....	1938	10,200	10,200		
Tusket.....	1929	2,820 <sup>1</sup>	2,820	3,680,540	8,391,102
Roseway.....	1930	560	560	365,600	2,195,600
Markland.....	1931	1,400	1,200	5,813,555	3,791,490
Antigonish.....	1931	<sup>2</sup>	4,000	389,520	3,931,700
Totals, Hydro Systems.....	...	...	81,050	...	251,644,959
Canseau Diesel.....	1937	72	724	21,650	115,732
Canseau Steam.....	1945	1,125 <sup>3</sup>	1,125 <sup>3</sup>	4,437,280	5,527,150
Totals, Thermal Systems.....	...	...	...	...	5,642,882
<b>Grand Totals.....</b>	...	...	...	...	<b>257,287,841</b>

<sup>1</sup> Minimum head.

<sup>2</sup> Distribution system only.

<sup>3</sup> Rated in kilowatts.

The nine systems comprised 2,244.15 miles of combined transmission and distribution lines and served 39 wholesale and 15,998 retail customers at Nov. 30, 1948. Twenty generating stations and 44 generating units are in service with a total installed capacity of 83,281 h.p. The total delivery to customers, which is somewhat variable, has reached 249,449,505 kwh. per year.

The Dickie Brook hydro-electric development of the Antigonish System first went into operation on Sept. 21, 1948, increasing the System installation by 2,900 h.p. at normal operating head and making provision for an additional 1,450 h.p. when required. Units are rated at 1,750 h.p. at 298 ft. head.

Construction work is being carried on for the erection of a steam plant in Pictou County which is expected to begin operation in 1950. This plant will have an initial installation of 10,000 kw.

Deep Brook hydro-electric development on the Mersey River, now under construction, will add 12,000 h.p. to the Markland System. It is scheduled to start operation early in 1950.

**New Brunswick.**—The New Brunswick Electric Power Commission was incorporated under the Electric Power Act, 1920. Generating stations owned and operated by the Commission are as follows:—

<u>Plant</u>	<u>Type</u>	<u>Capacity</u> h.p.
Musquash.....	Water power.....	10,000
Kouchibouguac.....	Water power.....	200
Grand Lake.....	Steam.....	26,800
Saint John.....	Steam.....	25,500
Chatham.....	Steam.....	16,750
Grand Manan.....	Diesel.....	645
St. Quentin.....	Diesel.....	550
St. Stephen.....	Diesel.....	3,300
Campobello.....	Diesel.....	335
Andover.....	Diesel.....	535
Shippegan.....	Diesel.....	2,680
TOTAL CAPACITY.....		87,295

The Musquash, Grand Lake and Kouchibouguac plants are inter-connected and operate in parallel at all times.

In 1948 the New Brunswick Electric Power Commission completed 66,000 volt lines from Chatham to Moncton, Chatham to Nelson, Coverdale to Hillsboro and Coal Branch to Buctouche. High-voltage transmission was thereby increased from 348 miles in 1947 to 476 miles in 1948. Power is sold *en bloc* to the cities of Saint John, Moncton, Fredericton and the town of Sussex.

The statistical information given in Table 15 shows the growth of the Commission's undertakings since 1924.

**15.—Growth of the New Brunswick Electric Power Commission, Years Ended Oct. 31, 1924, and 1944-48**

Item	1924	1944	1945	1946	1947	1948
High-voltage trans- mission line.....miles	138	348	348	348	348	476
Distribution line.....“	67	2,150	2,326	2,510	2,902	3,428
Indirect customers..... No.	11,561	—	—	—	—	—
Direct customers.....“	1,129	21,955	24,166	27,299	33,837	38,908
Plant capacities..... h.p.	11,100	32,510	37,590	37,590	38,190	87,295
Power generated..... kwh.	15,500,000	115,524,000	122,508,320	131,315,745	147,008,120	195,878,655
Capital invested..... \$	3,780,000	11,066,400	11,509,962	12,439,470	15,532,885	22,286,778
Revenue..... \$	310,000	1,899,500	2,024,468	2,181,272	2,495,868	3,544,717

**Quebec.**—*The Quebec Streams Commission.*—Created in 1910 by 1 Geo. V, c. 5, and given additional powers by 3 Geo. V, c. 6 (R.S.Q., c. 46) and by 20 Geo. V, c. 34, the Commission was authorized to ascertain the water resources of the Province, to make recommendations regarding their control, and to construct certain storage dams and operate them so as to regulate the flow of streams. The Commission has assisted companies engaged in such work by the systematic collection of data on the flow of the principal rivers and on meteorological conditions, by investigation of numerous water-power sites and determination of the longitudinal profile of a large number of rivers, but mainly by the regulation of the flow of the principal power streams through the construction of storage dams.



From 1912 to 1925, a number of storage reservoirs were built or acquired by the Commission, charges being made to benefiting companies to cover interest and amortization on the capital invested as well as the cost of operation. Since 1925, companies or persons have availed themselves of the latitude given them by R.S.Q. 1925, c. 46, to build the necessary dams; such storages have been transferred to and are operated by the Commission, the cost of operation only being charged annually to the interested companies or persons. In all, the Commission now controls and operates 28 storage-reservoirs in the Province.

Among the rivers controlled by the Commission, either by means of dams on the rivers themselves or by controlling the outflow of lakes at their headwaters, are: the St. Maurice, now developing 1,110,550 h.p.; the Gatineau, 528,000 h.p.; the Lièvre, 274,000 h.p.; the St. Francis, 100,000 h.p.; the Chicoutimi, 41,400 h.p.; the Au Sable, 33,200 h.p.; and the Metis, 15,700 h.p. The Commission also operates nine reservoirs on Rivière du Nord, two in the watershed of Ste-Anne-de-Beaupré River, and one at the outlet of Lake Morin, on Rivière-du-Loup (en bas).

*Reservoirs not Controlled by the Quebec Streams Commission.*—Among storage-reservoirs not controlled or operated by the Commission are: the Lake St. John, the Lake Manouane and Passe Dangereuse on the Peribonca River, and the Onatchiway on the Shipshaw River; the Témiscouata Lake on Madawaska River, controlled by Gatineau Power Company; Memphremagog Lake on the Magog River, controlled by Dominion Textile Company; Temiscamingue and Quinze Lakes on the Ottawa River, controlled by the Department of Public Works of Canada; Kipawa Lake on the Ottawa River, controlled by Canadian International Paper Company; Dozois Lake on the Upper Ottawa River, controlled by the Quebec Hydro-Electric Commission.

Power developments on the Saguenay River, benefiting from the Peribonca and Lake St. John reservoirs, amount to 1,950,000 h.p. since the Chute-à-Caron (Shipshaw) project has been completed.

*The Quebec Hydro-Electric Commission.*—The Quebec Hydro-Electric Commission was established by 8 Geo. VI, c. 22, with the object of supplying power to the municipalities, industrial or commercial undertakings and citizens of the Province of Quebec at the lowest rates consistent with sound financial administration.

On Apr. 15, 1944, in accordance with the provisions of this Act, the Commission took over: (a) the system of Montreal Light, Heat and Power Consolidated for the generating and distributing of electricity; (b) the undertaking of Montreal Island Power Company for the generating and distributing of electricity; and (c) all the shares of the capital stock of Beauharnois Light, Heat and Power Company. Thus, Quebec Hydro-Electric Commission acquired the control, among other assets, of the following hydro-electric plants:—\*

<i>Hydro-Electric Plant</i>	<i>River</i>	<i>Installed Capacity</i>
Cedars.....	St. Lawrence.....	200,000 h.p.
Chambly.....	Richelieu.....	9,000 h.p.
Sault-au-Récollet.....	Rivière-des-Prairies.....	45,000 h.p.
Beauharnois.....	St. Lawrence.....	730,000 h.p.

\* The Commission also purchases 175,000 h.p., mainly from the Shawinigan Water and Power Company.

The Commission operates a public utility system which supplies electric light and power requirements to Greater Montreal and surrounding districts embracing a population of nearly 1,500,000. From the Cedars plant, electric energy is supplied to the Aluminum Company of America at Massena, N.Y., and through Beauharnois Light, Heat and Power Company power is sold to the Hydro-Electric Power Commission of Ontario. Sales involved are in the neighbourhood of rates of 100,000 h.p. to Massena, N.Y. and 250,000 h.p. to Ontario.

#### 16.—Growth of the Quebec Power Systems, 1935-48

Year	Municipalities Served	Customers Served	Power Distributed	
			Total	Primary
	No.	No.	h.p.	h.p.
1935.....	61	266,744	540,000	405,000
1936.....	61	268,818	585,000	455,000
1937.....	61	271,274	600,000	480,000
1938.....	61	273,637	733,000	635,000
1939.....	61	277,010	773,000	676,000
1940.....	61	281,027	806,000	699,000
1941.....	61	285,648	892,000	784,000
1942.....	61	289,038	1,032,000	827,000
1943.....	61	293,005	1,044,000	942,000
1944.....	61	298,767	1,060,000	897,000
1945.....	61	305,049	1,045,000	883,000
1946.....	61	309,022	1,085,000	947,000
1947.....	61	318,984	1,127,000	980,000
1948.....	61	330,799	1,202,000	1,034,000

#### 17.—Distribution of Primary Power to Systems, 1943-48

(Coincident with Montreal System peak)

System	1943	1944	1945	1946	1947	1948
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.
Montreal System.....	440,000	466,000	512,000	538,000	567,000	620,000
Beauharnois Local System.....	129,000	77,000	27,000	34,000	35,000	36,000
Beauharnois 25-cycle System (H.E.P.C. of Ontario).....	250,000	250,000	250,000	250,000	250,000	250,000
Massena System.....	123,000	104,000	94,000	125,000	128,000	128,000
<b>Totals.....</b>	<b>942,000</b>	<b>897,000</b>	<b>883,000</b>	<b>947,000</b>	<b>980,000</b>	<b>1,034,000</b>

In addition to the ownership and operation of these generating and distribution systems, the Quebec Hydro-Electric Commission administers the 48,000-h.p. Upper Ottawa River plant at Rapid VII and also the Dozois Reservoir. Average primary power statistics for this Northern Quebec System (Cadillac-Noranda district) are as follows: 1943, 15,030 h.p.; 1944, 16,820 h.p.; 1945, 14,720 h.p.; 1946, 15,750 h.p.; 1947, 18,140 h.p.; and 1948, 21,270 h.p.

**Ontario.**—*The Hydro-Electric Power Commission of Ontario.* — An account of the inception and operations of the Commission is given at pp. 377-378 of the 1940 Year Book.

Since 1945 the Commission has been engaged in implementing the power development program for which plans were started before the termination of the Second World War. The following statement shows the existing and authorized power resources of the Commission as at Jan. 1, 1949:—

AVAILABLE POWER RESOURCES OF THE HYDRO-ELECTRIC  
POWER COMMISSION OF ONTARIO, 1949

	kw.	h.p.
Maximum normal plant capacity (including DeCew Falls second unit placed in service September, 1947).....	1,338,000	1,793,400
Power purchased, contract amount.....	712,000	954,700
	<u>2,050,000</u>	<u>2,748,100</u>
New developments completed in 1948 as part of the post-war program.		
Stewartville.....81,000 h.p. }		
Aguasabon.....53,000 " }	105,600	141,500
Ear Falls.....7,500 " }		
Additional power purchase contract.....	22,500	30,200
Power resources as at Jan. 1, 1949.....	<u>2,178,100</u>	<u>2,919,800</u>
Additional authorized construction (as detailed below).....	835,000	1,116,500
TOTALS.....	<u>3,013,100</u>	<u>4,036,300</u>

AUTHORIZED CONSTRUCTION

Southern Ontario System—		
Des Joachims—Ottawa River.....	358,000	480,000
Chenau—Ottawa River.....	120,000	160,000 <sup>1</sup>
La Cave—Ottawa River.....	135,000	180,000
Windsor steam plant.....	120,000	160,000
Thunder Bay System—		
Pine Portage—Nipigon River.....	60,000	80,000 <sup>2</sup>
Northern Ontario Properties—		
Tunnel—Mississagi River.....	42,000	50,500
TOTALS (under construction at Jan. 1, 1949).....	<u>835,000</u>	<u>1,116,500</u>

<sup>1</sup> Ultimate capacity planned—240,000 h.p.  
160,000 h.p.

<sup>2</sup> Ultimate capacity planned—

*Hydro-Electric Power Commission Statistics.*—The Annual Reports of the Commission present, in detail, descriptions and statistics of operation, construction municipal work, transmission and distribution. The Commission exercises supervisory functions over the electrical utilities owned and operated by the partner municipalities.

The Commission was established by special Acts of the Provincial Legislature in 1906 and 1907. In 1909 a comprehensive transmission system was commenced and by the end of 1910 power was being supplied to several municipalities. The initial capital expenditure required for this purpose was approximately \$3,600,000. At Oct. 31, 1948, the total capital investment amounted to \$712,760,245, of which \$546,352,576 represented investments by the Commission in generating plants, transmission systems, etc., operated by the Commission for the major systems under its control; \$166,407,669 represented investments by municipalities in local distributing systems of their own, including other assets. Similarly, total reserves of the Commission and of the municipal electric utilities for sinking funds, renewals, contingencies and insurance purposes amounted to \$495,896,508, of which \$342,281,112 represented reserves of the Commission and \$153,615,396 represented reserves and other assets of the municipal electric utilities.

**18.—Growth of The Hydro-Electric Power Commission of Ontario, Years Ended Oct. 31, 1931-48**

Year	Municipalities Served	Customers Served	Total Power Distributed	Capital of Commission and Assets of Municipal Utilities
	No.	No.	h.p.	\$
1931 <sup>†</sup> .....	721	600,297	1,107,227	373,010,000
1932.....	747	611,955	1,108,037	382,558,000
1933.....	757	621,418	1,366,735	394,661,000
1934.....	760	624,801	1,451,699	398,225,000
1935.....	766	636,134	1,625,733	408,001,000
1936.....	782	649,517	1,509,667	413,710,000
1937.....	795	667,863	1,648,467	424,422,000
1938.....	821	694,400	1,831,216	436,822,000
1939.....	858	720,872	1,963,471	446,123,000
1940.....	886	748,232	1,954,069	449,038,000
1941.....	900	771,681	2,312,219	467,235,000
1942.....	902	785,564	2,265,796	483,333,000
1943.....	903	797,258	2,330,806	487,023,000
1944.....	904	818,085	2,416,157	492,831,000
1945.....	922	869,712	2,599,873	521,644,000
1946.....	924	910,563	2,595,135	545,545,000
1947.....	944	952,853	2,685,172	603,227,000
1948.....	970	1,004,127	2,529,915	712,760,000

**19.—Distribution of Power to Systems of The Hydro-Electric Power Commission of Ontario, Years Ended Oct. 31, 1944-48**

System	1944	1945	1946	1947	1948
	h.p.	h.p.	h.p.	h.p.	h.p.
Southern Ontario system.....	2,043,646	2,177,763	2,156,599	2,257,733	2,068,331
Thunder Bay system.....	127,212	136,863	151,072	150,918	177,225
Northern Ontario properties.....	245,299	285,247	287,464	276,521	284,359
<b>Totals.....</b>	<b>2,416,157</b>	<b>2,599,873</b>	<b>2,595,135</b>	<b>2,685,172</b>	<b>2,529,915</b>

*Statistics of Urban Municipal Electrical Utilities of Ontario Served by the Commission.*—In the Annual Report of the Commission detailed consolidated balance sheets and operating reports are given for the 308 urban electrical utilities served.

The balance sheet shows that the total plant value has increased from \$10,081,469 in 1913 to \$126,096,692 in 1948, and the total assets from \$11,907,827 to \$259,296,737. The liabilities have not increased in the same proportion as the assets, rising from \$10,468,352 to a maximum of \$52,685,317 in 1932, and receding to \$12,792,273 in 1948, due to the regular fulfilment of debt retirement schedules under serial debenture provisions or by maturity of sinking funds, and because cost of the increasing plant value has been financed mainly out of reserves and surplus without increasing the capital liabilities of the respective utilities.

The operating report for 1948 shows that of the 308 municipal electrical utilities included in this statement, 305 received from consumers sufficient revenue to meet all operating expenses, interest, debt retirement instalments, and standard depre-



ciation reserve allocation, and to yield an aggregate net surplus of \$4,277,305 for the year; the other three utilities were able to defray out of revenue all such charges, except \$1,414 of the standard depreciation allocation.

*Rural Electrical Service in Ontario.*\*—During past years substantial progress has been made in Ontario in the field of rural electrification, and the Commission's rural operations are now an important feature of its work. The Ontario Government, pursuant to its policy of promoting agriculture contributes, in the form of 'grants-in-aid', 50 p.c. of the initial capital cost of distribution lines and equipment. In 1930, the Ontario Government passed legislation providing for advances up to \$1,000 to farm owners of lands and premises in rural power districts for the installation of electrical wiring, the purchase of equipment and providing for the fixing of low maximum service charges for all classes of rural Hydro service.

*Uniform Rural Rate Structure.*—A new uniform rural rate structure, for the sale of energy, became effective Jan. 1, 1944, for all rural Hydro service in Ontario.

The new energy rates consist of the following three-step energy charge:

- (1) a first block or number of kilowatt-hours of energy consumption in the billing period, charged for at 3.5 cents gross per kilowatt-hour;
- (2) a second block or number of kilowatt-hours of energy consumption in the billing period, charged for at 1.6 cents gross per kilowatt-hour; and
- (3) all remaining kilowatt-hours of energy consumption in the billing period, charged for at 0.75 cents gross per kilowatt-hour.

In addition, the service charge in use prior to Jan. 1, 1944, has been eliminated in the case of farm and commercial service, reduced by 50 p.c. in the case of hamlet service and changed to an annual fixed charge in the case of summer service.

*Farm Rate.*—More than 95 p.c. of the farms receiving Hydro service are served at the minimum demand rating for billing purposes of 3 kilowatts. This is a 3-wire service with a fuse rating of 35 amperes on each side of the neutral. There is no service charge for farm consumers. The first energy rate of 3.5 cents per kilowatt-hour applies to the first 60 kilowatt-hours per month. The second energy rate of 1.6 cents per kilowatt-hour applies to the next 180 kilowatt-hours per month. For all remaining energy consumption in the billing period the rate is 0.75 cents per kilowatt-hour.

The minimum bill is \$2.25 per month. A prompt payment discount of 10 p.c. is made on the total bill.

\* Legislation passed concerning rural power is as follows: the Power Commission Act (R.S.O. 1937, c. 62); the Rural Hydro-Electric Distribution Act (R.S.O. 1937, c. 64); the Rural Power District Loans Act (R.S.O. 1937, c. 65); and the Rural Power District Service Charge Act (R.S.O. 1937, c. 66).

## 20.—Electrical Service to Rural Power Districts Operated by The Hydro-Electric Power Commission of Ontario, Years Ended Oct. 31, 1944-48

Item	1944	1945	1946	1947	1948
Rural operating areas..... No.	120	121	92	92	97
Townships served..... "	467	468	469	473	497
Customers..... "	146,633	159,608	177,605	196,506	230,760
Primary distribution lines..... miles	21,023	22,309	23,663	24,374	29,532
Power supplied..... h.p.	100,514	128,345	164,424	195,515	205,916
Revenues from customers..... \$	5,666,392	6,094,010	7,203,192	8,451,058	9,762,049
Total expenses..... \$	5,235,814	5,795,063	7,146,610	8,360,570	9,763,736
Net surpluses..... \$	430,578	298,947	56,582	90,488	-1,687
Capital invested..... \$	41,257,200	44,536,481	49,206,971	55,126,269	67,596,984
Provincial grants-in-aid..... \$	20,426,487	22,022,424	24,391,821	27,192,870	33,380,778

**Manitoba.**—The Manitoba Power Commission commenced its operations in 1919 under the authority of the Electrical Power Transmission Act. This Act empowered the Commission to make provision for generating electric energy, to enter into contracts for the purchase of power in bulk from generating agencies, and for its transmission and sale to municipalities, corporations and individuals. The first stretch of transmission line was completed in 1920 from Winnipeg to Portage la Prairie.

For the first ten years power was purchased in bulk from the Winnipeg Hydro-Electric System. At the expiration of this period, the Seven Sisters Agreement between the Manitoba Government and the Winnipeg Electric Company provided for the reservation of a block of power for the Power Commission.

The Manitoba Power Commission Act of 1931 provided for the reorganization of the utility's administration. Bulk contracts were cancelled and service begun direct to the consumer, municipalities and towns having contracts for street lighting only. This made possible the adoption of a policy by which the Commission might eventually establish standard rates for all towns and villages regardless of distance from the source of supply or the sparseness of population.

The expansion of the utility since 1931 shows the importance of this reorganization. In 1931 there were 56 cities, towns and villages on the System; 281 communities were served in 1948. Revenue increased from \$700,000 to over \$3,284,000. Rate reductions, meanwhile, have reduced the average customer cost per kilowatt-hour by 50 p.c.

The successful growth of the network to the majority of the cities, towns, and villages of the Province, made it possible for the Commission to consider a project of extending electric service to the farms. The Manitoba Electrification Enquiry Commission appointed by the Provincial Government in 1942 to study farm electrification in the Province, reported electric service could be brought to at least 90 p.c. of the farms in the Province. Previously, individual or small groups of farms situated near existing low voltage transmission lines were connected on a contributory basis.

Construction under the farm program began on an experimental basis in 1945 when transmission lines were built to serve 674 farms in seven test areas. Under the farm electrification program the Commission bears the expense of building the power line right into the farm-yard, the farmer being responsible for his yard and interior wiring, and for the purchase of appliances. Post-war shortage of line materials restricted this program to 1,500 farms in 1946 and 3,500 in 1947. Substitution of Manitoba jack-pine poles and the establishment of a transformer factory and the development of miscellaneous pole-line hardware manufactures in the Province, enabled the Commission, in 1948, to return to the original plan of construction to 5,000 farms annually.

In conjunction with the farm program, the Commission is constructing lines to serve every community having a population of at least 20 persons, located within the practical service area of the Province. Following the connection of 103 communities scheduled to receive service during 1948 and 1949, 346 cities, towns, villages and hamlets will be supplied with power by the Commission.

**Saskatchewan.**—The Saskatchewan Power Commission was established in 1929 under the Power Commission Act (R.S.S. 1940, c. 33) which authorized the Commission to manufacture, sell and supply electric energy, to acquire and develop

water-power sites, to acquire or construct oil and steam plants, to construct transmission lines, to purchase power and to enter into contracts with municipalities for the supply of electric energy.

During the years 1929 to 1945, the Commission purchased certain generating plants, and constructed and purchased transmission lines and also distribution systems in towns and villages. These were improved, enlarged or supplemented. Particulars of these acquisitions and constructions are given in the 1941 Year Book and subsequent editions.

On Jan. 1, 1947, Dominion Electric Power Limited, which up to that date had been operated as a wholly owned subsidiary, was completely absorbed by the Commission, and on the same date the properties of Canadian Utilities Limited in Saskatchewan, with the exception of its Lloydminster plant, were acquired and added to the Commission's system.

Including the properties acquired from the private companies mentioned, the Commission at the end of the year 1948 owned and operated 4,190 miles of transmission line and distribution systems in 375 cities, towns and villages served from the system. Steam generating plants with a total installed capacity of 63,950 kw. are located at Estevan, North Battleford, Prince Albert, Saskatoon and Taylorton, while diesel plants with a total installed capacity of 27,435 h.p. are located at Assiniboia, Biggar, Canora, Davidson, Eastend, Grenfell, Hudson Bay, Humboldt, Kindersley, Leader, Maple Creek, Meadow Lake, Melfort, Melville, Moosomin, Nipawin, Perdue, Rosetown, Shaunavon, Shellbrook, Swift Current, Tisdale, Unity, Watrous, Wynyard and Yorkton. The Commission also purchased several blocks of power from one city (Regina) and one power company. Electrical energy was sold retail direct to consumers, except in the cities of North Battleford, Saskatoon and Swift Current and the town of Battleford, where energy is furnished in bulk to the municipal corporations and retailed by them to the consumers. The number of customers served direct at the end of 1948 (including rural services) was 51,237, while the number served by municipalities buying power in bulk from the Commission was 19,772.

During 1947, 132 cities, towns, villages and hamlets were added to the Commission's system, including 64 taken over from Dominion Electric Power, Limited and Canadian Utilities, Limited. In 1948, 32 towns and villages were added to the Commission's system.

In 1947, approximately 465 miles, and in 1948, approximately 650 miles of transmission lines were constructed.

Substantial alterations were made in existing lines radiating out of the City of Saskatoon, including the installation of a new underground cable from the Saskatoon plant to the Commission's substation and switch centre on the outskirts of the city.

In the years 1947 and 1948 substantial additions were made to the Commission's steam generating plants at Estevan, Prince Albert and Saskatoon. In the same years, additions were made to certain of the Commission's diesel plants, and a new diesel plant was established at Moosomin containing two 875 h.p. Busch-Sulzer units; four diesel plants were closed down because of the extension of transmission lines. In the Commission's generating plant at Unity a 520 h.p. gas diesel generating unit and two 800 h.p. natural gas generating units were installed and put in operation.



Transmission lines constructed in 1948 included a 24 kv. line 134 miles in length connecting the Unity plant with the towns of Wilkie, Scott, Kerrobert and Kindersley and the Commission's Luseland system.

Regina and Weyburn as well as a number of small towns and villages own and operate their municipal plants and distribution systems. The plant and distribution system in the city of Moose Jaw, and a short transmission line south of that city are owned and operated by a private company.

### 21.—Growth of the Saskatchewan Power Commission, 1934-48

NOTE.—Figures for the years 1929-33, inclusive, will be found at p. 499 of the 1947 Year Book.

Year	Municipalities Served		Customers Served		Total Power Generated	Total Power Purchased	Capital
	In Bulk	Directly	In Bulk	Directly			
	No.	No.	No.	No.	kwh.	kwh.	\$
1934.....	3	123	15,833	7,754	44,863,396	1,817,528	7,428,330
1935.....	4	123	13,644	8,219	46,889,172	1,986,105	7,504,726
1936.....	4	123	13,747	8,506	49,757,756	1,967,025	7,535,783
1937.....	4	126	13,513	8,620	49,165,813	1,918,473	7,609,910
1938.....	4	129	13,658	9,183	49,435,169	1,954,995	7,765,571
1939.....	4	129	13,606	9,467	55,055,958	2,085,702	8,174,141
1940.....	4	134	14,416	10,268	56,717,006	2,423,188	8,271,730
1941.....	4	136	14,416	10,542	65,225,001	2,019,107	8,511,974
1942.....	4	139	15,413	11,450	70,084,762	2,100,225	8,617,455
1943.....	4	139	16,677	12,197	79,565,860	1,921,440	8,748,856
1944.....	4	143	15,982	12,989	85,118,625	1,808,586	8,939,920
1945.....	4	203	16,341	18,034	87,248,840	3,098,450	10,661,321
1946.....	4	211	17,481	20,654	89,111,619	12,050,544	11,841,658
1947.....	4	343	18,718	45,087	145,049,416	15,371,443	20,305,068
1948.....	4	375	19,772	51,237	165,671,184	21,163,121	23,280,528

Control and regulatory powers regarding franchises for the supply of electric energy and the rates to be charged therefor are conferred upon the Local Government Board by Part III of the Public Utilities Companies Act (R.S.S. 1940, c. 118). The Commission is given certain control and regulatory powers regarding electrical public utilities under Part III of The Power Commission Act.

On Feb. 1, 1949, under the terms of the Crown Corporations Act, 1947 (c. 13), the Saskatchewan Power Corporation took over the assets and assumed the obligations of the Saskatchewan Power Commission. A number of provisions of the Power Commission Act were made applicable to the Corporation which consists of a body corporate of six members appointed by the Lieutenant-Governor in Council. Control and regulation of electricity and natural and manufactured gases were left to the Commission.

In 1949 the Rural Electrification Act was passed. This Act provides for the supply of power to rural customers by means of lines owned by the Saskatchewan Power Corporation, either in rural districts or to individuals or small groups not within rural districts. It also provides for bulk supply of power to rural power co-operative associations.

**Alberta.**—Public ownership of power-generating and distributing systems in Alberta is confined to certain urban municipalities. The regulatory authority over privately-owned systems is the Board of Public Utility Commissioners, which has jurisdiction over the distribution and sale of electricity. The Board has power to hold investigation upon complaint made either by a municipality or by a utility company and, following such investigation, may fix just and reasonable rates.



There are three private utility services in the Province, the Calgary Power, Limited, Canadian Utilities, Limited, and Northland Utilities, Limited. A short synopsis of these services is given below.

*Calgary Power Limited.*—This Company has five hydro-generating plants on the Bow River and its tributaries, west of Calgary. These plants are: the Horseshoe Falls, Kananaskis Falls, Ghost River with a storage reservoir capacity of 74,000 acre-feet of water, Cascade and Barrier plants, total 105,000 h.p., which capacity will be increased to almost 200,000 h.p. when Spray—now under construction—is completed. The Barrier plant, completed in 1947, is operated by remote control. In addition to the Ghost storage, the Company has reservoirs at Lake Minnewanka and the Upper Kananaskis Lake, and Spray Lakes when completed.

Power from these plants together with that received under interchange agreements with the cities of Lethbridge and Edmonton, the East Kootenay Power Company, Limited, and the 14,000 h.p. steam plant at Calgary, is fed into a transmission network which supplies the entire electrical requirements of the cities of Calgary and Red Deer, and 180 towns, villages and hamlets in central and southern Alberta. Calgary Power, Limited, transmission system, comprising 4,000 miles of lines of all voltages, extends from the International Boundary to Westlock, 60 miles north of Edmonton, and in the central part of the Province extends west to the Brazeau coal fields at Nordegg and east to Macklin, Sask. Calgary and Lethbridge and the towns of Ponoka, Macleod and Cardston are supplied upon a wholesale basis and own their own distribution systems. All other points upon the system are supplied on a retail basis.

The Company has 3,800 miles of transmission lines and 431 miles of distribution lines. An extensive farm electrification program is in progress and at Apr. 1, 1949, the Company was supplying approximately 4,000 farms. Under a co-operative arrangement, 2,500 to 3,000 farms will be added each year in this program, the company doing all engineering, construction and operation through a non-profit subsidiary, energy being supplied to the farm co-operative customers at cost. Alberta's sparse farm population presents an enormous problem to a farm electrification program of any type.

The Company's transmission systems are designed with a view to future expansion. Expansion of power generating facilities is presently under way. The Spray Lakes project, scheduled for completion in 1950, will develop ultimately a total of 89,000 h.p., the largest hydro installation in the Province. Immediate construction of two hydro plants, to be known as Spray and Three Sisters, will add 62,000 h.p. and 3,600 h.p., respectively. The third, the Rundle plant, is a future project, and will have a capacity of 23,000 h.p. Five dams will impound water in three storage reservoirs, developing a total head of 1,285 ft. when the system is complete.

*Canadian Utilities Limited.*—Towns and villages northeast of Drumheller are supplied from a 13,500 kw. steam plant in that city, by Canadian Utilities, Limited, while towns and villages north and east of Vegreville are served from a new gas-fired 7,500 kw. steam plant at Vermilion. There are also diesel stand-by plants at Lloydminster and a tie-line with Calgary Power, Limited, near Holden. This utility also serves the areas around Grande Prairie from a 2,300 h.p. diesel-engine plant located in that centre. The Company serves over 16,000 customers, in approximately 100 towns, villages and hamlets in the Province, through a network of approximately 1,080 miles of transmission lines.

In 1949, the Company embarked on a program of extending its lines to farmers on a co-operative basis. Energy is supplied at the individual meters at 2 cts. per kwh. and the Company also collects from the farmers \$3.50 per month, against which it charges the operating and depreciation costs involved. In effect, the system is constructed and operated at cost for the farmer.

*Northland Utilities Limited.*—This Company, with headquarters at Edmonton, supplies electric energy to 4,450 consumers in 22 northern communities. Diesel generating plants are located at Jasper, Mayerthorpe, Athabasca, High Prairie, McLennan, Peace River and Chauvin. Low-voltage transmission lines extending from these generating stations supply electricity to 120 farms and 13 villages.

In addition to the diesel generating stations, the Company in 1948 constructed a 665 kva. hydro plant on the Astoria River in Jasper National Park for the Department of Mines and Resources. The Company also serves the communities of Dawson Creek, Pouce Coupé and Rolla in the Peace River Block of British Columbia.

*Other Privately Owned Utilities.*—Edmonton generates power from coal and operates its own distribution system; in addition, there is a reciprocal arrangement with Calgary Power, Limited, for exchange of power at peak periods. Calgary, Red Deer, Lethbridge, Macleod, Cardston and Ponoka own their distributing systems but purchase power from Calgary Power, Limited. Medicine Hat owns a power plant and distribution system and furnishes power to the adjacent town of Redcliff. Villages and hamlets beyond the reach of the large utility companies are served by small privately owned power plants.

**British Columbia.**—The British Columbia Power Commission was appointed Apr. 17, 1945, under the provisions of the Electric Power Act, to provide for improving the availability and supply of electric power. In addition to acquiring the electrical equipment of the West Canadian Hydro Electric Corporation, Nanaimo-Duncan Utilities, Limited, Columbia Power Company, Limited, National Utilities, Limited, and the Kamloops properties of British Columbia Electric Railway Company Limited, the Commission has also purchased several smaller privately owned utilities and municipal plants throughout the Province. The latest of these are: Vancouver Island Utilities, Limited, serving nearly 850 customers in the vicinity of Campbell River, and the municipal distribution system serving the city of Courtenay and Comox District with over 1,700 customers, acquired January and April, 1949, respectively.

The Commission's main development on Vancouver Island, the building of a hydro-electric plant—the 'John Hart' development, on Campbell River, designed for an ultimate capacity of 180,000 h.p.,—was officially opened Dec. 15, 1947. The first two units, comprising 50,000 h.p. now supply power to the territory north of Duncan over a 104-mile 132,000 volt double circuit transmission line making electric energy available to industries that are now being attracted to this readily accessible area on Vancouver Island. Power for the southern part of Vancouver Island is to be purchased by the B. C. Electric Railway Company, so that the third

and fourth units, comprising the second 50,000 h.p. block at the John Hart development are already being installed. This phase is expected to be completed by Sept. 30, 1949, and has necessitated the building of a large storage dam enlarging Lower Campbell Lake.

On the mainland another major construction project is under way at Whatshan near the west side of Upper Arrow Lake. This plant in the interior of the Province is designed for an ultimate 60,000 h.p. The first stage of development calls for two 15,000 h.p. units, which are at present under construction and will be in operation in 1951. Power from this plant will be transmitted 75 miles to Vernon in the Okanagan Valley over a 138 kv. line. In addition a 65-mile 63 kv. volt line has been built to connect Vernon with Kamloops on the main line of both transcontinental railways. In this way a large area in the interior of the Province will be served by the Commission through water power.

By April, 1949, the Commission owned and operated 19 generating stations comprising 1 steam plant, 5 hydro plants, and 13 diesel plants. The total rated capacity of these plants was 69,583 kva. Electricity was distributed in 19 distinct power districts and supplied wholesale to one municipality. In 14 of these areas promotional rates have been introduced to "permit and encourage the maximum use of power" as required by the Act. Over 34,000 customers are being served by the Commission at this date. Of this figure nearly 10,000 represent new services installed by the Commission, indicating a considerable extension of service over a three-year period.

Table 22 shows the rapid growth achieved by the Commission from 1947-49.

**22.—Growth of the British Columbia Power Commission, Years Ended Mar. 31, 1947-49**

Item	1947	1948	1949
Number of customers.....	23,039	27,470	31,619
Installed plant capacity.....Kva	18,450	68,060*	69,583
Miles of Line—			
Transmission (high voltage).....	181	285	285
Distribution primaries.....	905	1,131	1,389
Power generated and purchased.....Kwh	50,951,849	82,533,340	132,685,512
Annual revenue.....\$	1,411,834	2,146,689	2,550,263
Average revenue per kwh. sold.....cts	3.2	3.3	2.3
Capital Investment—			
Generation plant.....\$	3,024,270	3,324,946	10,634,242
Transmission plant.....\$	800,769	821,182	4,733,438
Distribution and general plants.....\$	3,267,284	4,453,077	5,612,301
<b>Totals, Capital Investment.....\$</b>	<b>7,092,323</b>	<b>8,599,205</b>	<b>20,979,981</b>



### Subsection 3.—Private Ownership of Central Electric Stations\*

Summary statistics of privately owned central electric stations are given for the years 1930 to 1947 in Table 23.

#### 23.—Summary Statistics of Privately Owned Central Electric Stations, 1930-47

Year	Power Plants	Customers	Electric Energy Generated	Power Equipment <sup>1</sup>	
				Water Wheels and Turbines	Total
	No.	No.	'000 kwh.	h.p.	h.p.
1930.....	421	745,608	12,937,014	3,690,095	3,914,474
1931.....	396	756,285	12,191,139	3,916,720	4,171,305
1932.....	402	776,400	12,338,216	4,426,235	4,704,523
1933.....	403	776,581	13,665,974	4,563,973	4,842,686
1934.....	402	760,462	16,060,883	4,817,600	5,097,613
1935.....	397	779,400	17,767,949	4,992,805	5,274,174
1936.....	390	802,676	18,515,225	4,866,471	5,146,863
1937.....	389	833,711	20,315,627	5,047,253	5,336,811
1938.....	406	859,506	19,488,323	5,142,432	5,300,183
1939.....	427	889,418	21,285,710	5,226,483	5,385,632
1940.....	421	926,093	22,287,270	5,544,803	5,708,664
1941.....	424	954,906	24,784,691	5,753,150	5,917,160
1942.....	428	985,059	28,177,887	6,099,440	6,269,386
1943.....	425	1,009,603	31,082,239	7,069,774	7,239,936
1944.....	424	753,239	25,688,581	6,175,674	6,373,523
1945.....	392	766,554	25,530,857	6,098,240	6,294,121
1946.....	397	826,091	26,997,716	6,104,383	6,301,996
1947.....	377	870,408	27,665,524	5,750,950	5,936,125

<sup>1</sup> Exclusive of auxiliary equipment.

The predominant position of Quebec in the electric-power field can be seen from the column in Table 24 showing electric energy generated. Of the total power generated in Canada by all central electric stations in 1947, 48 p.c. was generated by privately owned or commercial stations in the Province of Quebec; this percentage decreased from 57 in 1943 as a result of the transfer in 1944 of the Montreal Light, Heat and Power Company and the Beauharnois Power Company to the publicly owned Quebec Hydro-Electric Commission.

All stations in Ontario produce less than one-half as much power as the Quebec stations and only 20 p.c. of the total for Ontario stations is produced by privately owned stations.

\* Revised in the Transportation Division of the Dominion Bureau of Statistics.

#### 24.—Privately Owned Central Electric Stations, by Provinces, 1947

Province or Territory	Power Plants	Customers	Electric Energy Generated	Power Equipment	
				Water Wheels and Turbines	Total
	No.	No.	'000 kwh.	h.p.	h.p.
Prince Edward Island.....	8	7,305	16,668	363	7,515
Nova Scotia.....	18	74,887	350,288	25,878	116,147
New Brunswick.....	7	30,064	438,460	91,400	120,940
Quebec.....	73	367,277	20,780,204	4,392,540	4,393,020
Ontario.....	45	71,348	2,274,256	395,297	395,612
Manitoba.....	8	43,914	1,279,288	265,800	266,848
Saskatchewan <sup>1</sup> .....	50	11,529	520,137	87,500	120,809
Alberta.....	85	48,652	431,942	104,500	119,507
British Columbia and Yukon.....	53	215,412	1,574,281	387,672	395,727
<b>Totals.....</b>	<b>377</b>	<b>870,408</b>	<b>27,665,524</b>	<b>5,750,950</b>	<b>5,936,125</b>

<sup>1</sup> One hydro-electric station in Saskatchewan, which was formerly included with Manitoba, is now shown with Saskatchewan although the power is consumed in Manitoba.



**Newfoundland.**—The Province of Newfoundland, including Labrador, has an estimated potential of over 5,000,000 h.p. of which in 1949 about 5 p.c. had been developed. The available hydro power on the Island alone is placed at well over 1,000,000 h.p.

Abundant even precipitation coupled with a high, wide interior plateau combine to give the Island of Newfoundland the natural requirements for the development of hydro-electric power. Storage capacity is secured from lakes and controlled rivers which hold back from 20 p.c. to 40 p.c. of the yearly flow. The average rainfall is some 44 inches and varies from 58 inches in the more populated Avalon Peninsula to 34 inches in the Northern Peninsula. Approximately 700 rivers flow into the sea but the principal developments are on the Humber (147,000 h.p.), Exploits (80,000 h.p.) and Tor Cove (9,900 h.p.) Rivers. Considerable potential is also available on the Salmon or Bay D'Est, Terra Nova, Grey, White Bear and North Bay Rivers.

Installed turbine capacity at the end of 1948 was nearly 260,000 h.p., 219,400 h.p. of which was utilized by the two leading pulp and paper companies. The balance was distributed among four privately owned companies, the largest being the Newfoundland Light and Power Company with 22,400 h.p. from four plants and the United Towns Electric Company with 16,710 h.p. from eight plants. There are no publicly owned systems.

Frequency used is 60 cycles except in areas served by the pulp and paper companies where 50 cycles prevails with original machinery from England.

A considerable number of home-lighting plants and small generators are in use in most of the scattered outports despite the proximity of water power.

### **Section 3.—Total Development of Electric Power from All Available Sources**

In Section 1 of this Chapter total water-power resources are given with the proportion that has been so far developed. Table 4 of that Section analyses the hydraulic turbine installation by the proportions in central electric stations, in pulp and paper mills, and in other industries. This is useful material, but it does not take into account electric power developed in central electric stations or in other industries from sources other than hydraulic.

Section 2 covers the central electric station industry including those under the public ownership of provincial and municipal governments, and those under private ownership. Neither of these Sections, however, gives a complete presentation of the total electric power developed in Canada. All the hydraulic energy developed is not converted to electric power: there are a number of water wheels and water turbines used for direct drive that are not geared to electric generators. On the other hand, certain central electric stations in the Maritime Provinces and in the Prairie Provinces generate electricity from steam or internal combustion engines. It is the purpose of this Section to show the total electric power generated from all available sources. Most of the power comes, of course, from central electric stations, the figures having been given in Table 5 of Section 2, p. 563. The total kilowatt hours of electric power generated by central electric stations is divided into that generated from water power and that generated from thermal engines of all kinds.

As shown in that table the total electric power generated by central electric stations in 1947 was 43,424,799 kwh. For a complete presentation, the power generated by manufacturing industries for their own use and the power generated by the primary mining industry for use in its own operations must be added. There are a few other sources of electric energy such as electric railways which produced 12,638,100 kwh. during 1947. This production has been taken into the annual totals shown in Table 25. There are numerous small lighting and power plants on farms, rural homes, summer resorts, stores, etc., where electricity from central electric stations is not available and for which there are no available data. The following table gives available data separately and as a combined total. Of the total electric power generated in Canada in 1947, 92.1 p.c. is shown to have been developed in central electric stations and of this 2.4 p.c. was generated by thermal engines (see Table 5, Sect. 2), the remainder having been produced hydraulically. Of the 7.9 p.c. generated by industry for its own use 7.3 p.c. was developed by the manufacturing industries and 0.6 p.c. by the mining industry.

**25.—Total Power Generated by Central Electric Stations, Manufacturing and Mining Industries, 1938-47**

NOTE.—Figures for the years 1927-37 will be found at p. 516 of the 1948-49 edition of the Year Book.

Year	Central Electric Stations		Manufacturing Industries		Mining Industries		Total <sup>1</sup>
	'000 kwh.	p.c.	'000 kwh.	p.c.	'000 kwh.	p.c.	'000 kwh.
1938.....	26,154,160	91.4	2,198,732	7.7	240,078	0.8	28,602,697
1939.....	28,338,030	91.5	2,369,338	7.7	262,161	0.8	30,978,629
1940.....	30,109,283	91.1	2,640,919	8.0	303,077	0.9	33,062,459
1941.....	33,317,663	91.3	2,840,843	7.8	309,374	0.9	36,479,140
1942.....	37,355,179	91.1	3,345,445	8.2	296,734	0.7	41,007,482
1943.....	40,479,593	92.1	3,211,609	7.3	248,848	0.6	43,950,190
1944.....	40,598,779	93.2	2,752,125	6.8	210,554	0.5	43,571,276
1945.....	40,130,054	94.0	2,302,260	5.5	217,249	0.5	42,709,563
1946.....	41,736,987	93.5	2,714,262	6.1	199,950	0.4	44,651,199
1947.....	43,424,799	92.1	3,464,562	7.3	273,328	0.6	47,162,689

<sup>1</sup> Includes power generated by electric railways for their own use.

## Section 4.—Power Equipment in Canadian Manufacturing and Mining Industries

Table 26 shows the power equipment installed in the manufacturing and mining industries of Canada from 1939 to 1947. The figures for the nine years show that primary power increased from 1,984,077 h.p. to 2,577,252 h.p. or by 30 p.c. while the installation of electric motors operated by purchased power shows an increase of no less than 1,779,284 h.p. In considering the increase in the latter figures, it must be borne in mind that the shift from belts and shafting to individual motors at each machine does not necessarily mean that an amount of power is used equivalent to the increased capacity: there is always a margin by which installed equipment exceeds the simultaneous load.

Of the total primary power installed in 1947, manufacturing establishments accounted for 89 p.c., while of the total electric motors operated by purchased power, manufacturing accounted for 87 p.c. and mining for 13 p.c.

**26.—Power Equipment Installed in Manufacturing and Mining Industries, 1939-47, with Details by Provinces, 1946 and 1947**

NOTE.—For figures prior to 1939 see corresponding tables in previous editions of the Year Book.

Year and Province or Territory	Steam Engines and Turbines	Internal Combustion Engines	Hydraulic Turbines and Water Wheels	Electric Motors Operated by Purchased Power	Total Power Equipment Installed	Total Electric Motor Capacity	Percentage Electric Power to Total Power
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	
<b>1939—Total</b> .....	<b>971,766</b>	<b>218,429</b>	<b>793,882</b>	<b>4,078,415</b>	<b>6,062,492</b>	<b>4,883,670</b>	<b>80.6</b>
Manufacturing.....	827,801	121,997	731,890	3,366,104	5,047,292	4,069,619	80.6
Mining.....	143,965	96,432	62,492	712,311	1,015,200	814,051	80.2
<b>1940—Total</b> .....	<b>1,004,901</b>	<b>253,923</b>	<b>784,126</b>	<b>4,209,825</b>	<b>6,352,775</b>	<b>5,136,200</b>	<b>80.8</b>
Manufacturing.....	848,596	152,240	727,051	3,563,048	5,290,935	4,287,817	81.0
Mining.....	156,305	101,683	57,075	746,777	1,061,840	848,383	79.9
<b>1941—Total</b> .....	<b>1,073,808</b>	<b>287,383</b>	<b>823,859</b>	<b>4,778,068</b>	<b>6,963,118</b>	<b>5,624,681</b>	<b>80.8</b>
Manufacturing.....	917,474	179,461	724,199	4,028,942	5,850,076	4,769,054	81.5
Mining.....	156,334	107,922	99,660	749,126	1,113,042	855,627	76.9
<b>1942—Total</b> .....	<b>1,081,859</b>	<b>331,808</b>	<b>816,631</b>	<b>4,748,374</b>	<b>6,978,672</b>	<b>5,668,039</b>	<b>81.2</b>
Manufacturing.....	927,509	224,358	741,751	4,076,277	5,969,895	4,877,194	81.7
Mining.....	154,350	107,450	74,880	672,097	1,008,777	790,845	78.4
<b>1943—Total</b> .....	<b>1,134,786</b>	<b>364,265</b>	<b>790,043</b>	<b>5,115,214</b>	<b>7,404,308</b>	<b>5,981,280</b>	<b>80.8</b>
Manufacturing.....	988,280	257,873	749,593	4,420,105	6,415,851	5,180,735	80.7
Mining.....	146,506	106,392	40,450	695,109	988,457	800,545	81.0
<b>1944—Total</b> .....	<b>1,153,052</b>	<b>385,774</b>	<b>779,850</b>	<b>5,124,948</b>	<b>7,443,624</b>	<b>5,991,223</b>	<b>80.5</b>
Manufacturing.....	1,013,615	288,312	729,216	4,437,296	6,468,439	5,217,013	80.7
Mining.....	139,437	97,462	50,634	687,652	975,185	774,210	79.4
<b>1945—Total</b> .....	<b>1,140,486</b>	<b>395,711</b>	<b>762,640</b>	<b>5,295,411</b>	<b>7,594,248</b>	<b>6,178,222</b>	<b>81.4</b>
Manufacturing.....	1,015,294	295,123	709,598	4,586,636	6,606,651	5,379,305	81.4
Mining.....	125,192	100,588	53,042	708,775	987,597	798,917	80.9
<b>1946</b>							
<b>Prince Edward Island</b> .....	<b>1,278</b>	<b>1,713</b>	<b>1,447</b>	<b>1,257</b>	<b>5,695</b>	<b>1,257</b>	<b>22.1</b>
Manufacturing.....	1,278	1,713	1,447	1,257	5,695	1,257	22.1
Mining.....	—	—	—	—	—	—	—
<b>Nova Scotia</b> .....	<b>105,709</b>	<b>30,588</b>	<b>14,671</b>	<b>168,207</b>	<b>319,175</b>	<b>244,888</b>	<b>76.7</b>
Manufacturing.....	71,325	21,910	14,671	95,370	203,276	160,574	79.0
Mining.....	34,384	8,678	—	72,837	115,899	84,314	72.7
<b>New Brunswick</b> .....	<b>85,354</b>	<b>20,091</b>	<b>28,043</b>	<b>144,532</b>	<b>278,020</b>	<b>199,262</b>	<b>71.7</b>
Manufacturing.....	83,859	18,046	28,043	141,234	271,182	195,834	72.2
Mining.....	1,495	2,045	—	3,298	6,838	3,428	50.1
<b>Quebec</b> .....	<b>207,102</b>	<b>98,910</b>	<b>323,259</b>	<b>2,061,655</b>	<b>2,690,926</b>	<b>2,233,621</b>	<b>83.0</b>
Manufacturing.....	205,405	66,195	320,264	1,871,289	2,463,153	2,035,482	82.6
Mining.....	1,697	32,715	2,995	190,366	227,773	198,139	87.0
<b>Ontario</b> .....	<b>440,413</b>	<b>146,367</b>	<b>260,178</b>	<b>2,273,211</b>	<b>3,120,169</b>	<b>2,641,766</b>	<b>84.7</b>
Manufacturing.....	437,441	107,910	257,320	1,986,765	2,789,436	2,348,433	84.2
Mining.....	2,972	38,457	2,858	286,446	330,733	293,333	88.7
<b>Manitoba</b> .....	<b>15,533</b>	<b>12,255</b>	<b>34</b>	<b>179,221</b>	<b>207,043</b>	<b>185,614</b>	<b>89.6</b>
Manufacturing.....	15,303	10,238	34	154,163	179,738	160,356	89.2
Mining.....	230	2,017	—	25,058	27,305	25,258	92.5
<b>Saskatchewan</b> .....	<b>17,524</b>	<b>23,497</b>	<b>—</b>	<b>113,753</b>	<b>154,774</b>	<b>115,993</b>	<b>74.9</b>
Manufacturing.....	16,459	19,362	—	67,598	83,419	47,875	57.4
Mining.....	1,065	4,135	—	66,155	71,355	68,118	95.5
<b>Alberta</b> .....	<b>60,217</b>	<b>39,408</b>	<b>—</b>	<b>140,014</b>	<b>239,639</b>	<b>154,110</b>	<b>64.3</b>
Manufacturing.....	28,281	30,640	—	91,465	150,386	97,741	65.0
Mining.....	31,936	8,768	—	48,549	89,253	56,369	63.2
<b>British Columbia</b> .....	<b>186,554</b>	<b>114,610</b>	<b>139,762</b>	<b>313,152</b>	<b>754,078</b>	<b>515,721</b>	<b>68.4</b>
Manufacturing.....	173,189	91,950	111,080	260,829	637,045	422,789	66.4
Mining.....	13,365	22,660	28,682	52,323	117,030	92,932	79.4
<b>Yukon and N.W.T.</b> .....	<b>99</b>	<b>2,984</b>	<b>19,700</b>	<b>1,660</b>	<b>24,443</b>	<b>10,228</b>	<b>41.8</b>
Manufacturing.....	99	494	—	23	616	23	3.7
Mining.....	—	2,490	19,700	1,637	23,827	10,205	42.8
<b>Canada</b> .....	<b>1,119,783</b>	<b>490,423</b>	<b>787,094</b>	<b>5,396,662</b>	<b>7,793,962</b>	<b>6,302,460</b>	<b>80.9</b>
Manufacturing.....	1,032,639	368,458	732,859	4,649,993	6,783,949	5,470,364	80.6
Mining.....	87,144	121,965	54,235	746,669	1,010,013	832,096	82.4



**26.—Power Equipment Installed in Manufacturing and Mining Industries, 1939-47, with Details by Provinces, 1946 and 1947—concluded**

Year and Province or Territory	Steam Engines and Turbines	Internal Combustion Engines	Hydraulic Turbines and Water Wheels	Electric Motors Operated by Purchased Power	Total Power Equipment Installed	Total Electric Motor Capacity	Percentage Electric Power to Total Power
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	
<b>1947</b>							
<b>Prince Edward Island</b>	<b>1,166</b>	<b>2,716</b>	<b>1,552</b>	<b>1,672</b>	<b>7,106</b>	<b>1,673</b>	<b>23.5</b>
Manufacturing.....	1,166	2,716	1,552	1,672	7,106	1,673	23.5
Mining.....	—	—	—	—	—	—	—
<b>Nova Scotia</b>	<b>106,899</b>	<b>39,416</b>	<b>14,984</b>	<b>224,283</b>	<b>385,582</b>	<b>248,245</b>	<b>64.4</b>
Manufacturing.....	72,294	27,964	14,984	146,928	282,170	161,522	61.6
Mining.....	34,605	11,452	—	77,355	123,412	86,723	70.3
<b>New Brunswick</b>	<b>88,109</b>	<b>26,084</b>	<b>23,886</b>	<b>156,744</b>	<b>294,823</b>	<b>214,949</b>	<b>72.9</b>
Manufacturing.....	86,579	22,141	23,886	153,703	286,309	211,741	74.0
Mining.....	1,530	3,943	—	3,041	8,514	3,208	37.7
<b>Quebec</b>	<b>202,342</b>	<b>107,996</b>	<b>277,600</b>	<b>2,224,665</b>	<b>2,812,603</b>	<b>2,404,664</b>	<b>85.5</b>
Manufacturing.....	200,254	78,602	274,735	2,013,303	2,566,894	2,186,051	85.2
Mining.....	2,088	29,394	2,865	211,362	245,709	218,613	89.0
<b>Ontario</b>	<b>462,122</b>	<b>169,789</b>	<b>272,084</b>	<b>2,445,557</b>	<b>3,349,552</b>	<b>2,848,977</b>	<b>85.1</b>
Manufacturing.....	459,122	123,845	269,234	2,143,872	2,996,073	2,540,134	84.8
Mining.....	3,000	45,944	2,850	301,685	353,479	308,843	87.4
<b>Manitoba</b>	<b>18,849</b>	<b>15,678</b>	<b>190</b>	<b>244,900</b>	<b>279,617</b>	<b>250,469</b>	<b>89.6</b>
Manufacturing.....	18,214	12,320	190	172,187	202,911	177,449	87.5
Mining.....	635	3,358	—	72,713	76,706	73,020	95.2
<b>Saskatchewan</b>	<b>13,830</b>	<b>24,816</b>	<b>—</b>	<b>46,733</b>	<b>85,379</b>	<b>47,574</b>	<b>55.7</b>
Manufacturing.....	12,765	19,945	—	37,763	70,473	37,990	55.9
Mining.....	1,065	4,871	—	8,970	14,906	9,584	64.3
<b>Alberta</b>	<b>53,039</b>	<b>50,452</b>	<b>—</b>	<b>150,561</b>	<b>254,052</b>	<b>164,211</b>	<b>64.6</b>
Manufacturing.....	26,157	39,138	—	100,872	166,169	107,089	64.4
Mining.....	26,882	11,314	—	49,689	87,883	57,122	65.0
<b>British Columbia</b>	<b>183,903</b>	<b>149,966</b>	<b>244,452</b>	<b>359,942</b>	<b>938,263</b>	<b>584,652</b>	<b>62.3</b>
Manufacturing.....	171,168	126,157	213,880	311,498	822,703	480,561	58.4
Mining.....	12,735	23,809	30,572	48,444	115,560	104,091	90.1
<b>Yukon and N.W.T.</b>	<b>119</b>	<b>5,513</b>	<b>19,700</b>	<b>2,642</b>	<b>27,974</b>	<b>11,633</b>	<b>41.6</b>
Manufacturing.....	119	476	—	24	619	24	3.9
Mining.....	—	5,037	19,700	2,618	27,355	11,609	42.4
<b>Canada</b>	<b>1,130,378</b>	<b>592,426</b>	<b>854,448</b>	<b>5,857,699</b>	<b>8,434,951</b>	<b>6,777,047</b>	<b>80.3</b>
Manufacturing.....	1,047,838	453,304	798,461	5,081,824	7,381,427	5,904,234	80.0
Mining.....	82,540	139,122	55,987	775,875	1,053,524	872,813	82.8

**Section 5.—Fuel Used in Canadian Industry**

Fuel is used quite generally throughout the industrial field for the generation of power by means of steam- and internal-combustion engines. It is used also for the heating of plants and for providing the heat necessary to some manufacturing processes. The most important industries where heat is applied to materials to facilitate or accomplish a desired transformation are: foundries; brick, tile, lime and cement works; petroleum refineries; the glass industry; distilleries; food preparation plants; rubber goods industry; etc. The figures of Table 27 cover fuel used for such heating purposes and for power. Fuels that constitute the raw materials to be transformed, such as coal in the coke and gas industries, crude petroleum in the refining industry and electricity used in such metallurgical processes as the electrolytic refining of non-ferrous metals, are not included.



The value of fuel consumed in the manufacturing and mining industries in 1947 showed an increase of 105 p.c. over 1940. Of the 1947 fuel account, the requirements of Ontario amounted to 49 p.c. of the total, of Quebec 28 p.c., of British Columbia 7 p.c. and of Nova Scotia 4 p.c.

Coal is, of course, by far the most important, on the basis of dollar values, of the various kinds of fuels used in industry, and in 1947 accounted for 52 p.c. of the total.

Fuel oil ranks second with 23 p.c. and gas (manufactured gas 9 p.c. and natural gas 1 p.c.) third in importance. Gas as a fuel is particularly important in Ontario. Natural gas is obtained from the southwestern portion of the Province and coal gas from the coke plants of the steel city Hamilton, much as the Province of Quebec draws coal gas from the coke plants at Montreal.

The use of natural gas is also relatively important in Alberta in both manufacturing and mining industries; in fact in the mining industry Alberta used, in 1947, gas which was valued at 43 p.c. of the total value of fuel used in mining operations generally.

The use of fuel oils in industry shows a very rapid rise. Total value of consumption rose from \$10,125,388 in 1939 to \$39,679,170 in 1947.

## 27.—Cost of Fuel Used in Manufacturing and Mining<sup>1</sup> Industries, 1939-47, with Details by Provinces for 1946 and 1947

NOTE.—For figures prior to 1939 see corresponding table in previous editions of the Year Book.

Year and Province	Coal	Coke	Fuel Oils	Wood	Gas	Other Fuels <sup>2</sup>	Totals
	\$	\$	\$	\$	\$	\$	\$
<b>1939—Totals</b> .....	<b>34,494,179</b>	<b>4,909,416</b>	<b>10,125,388</b>	<b>2,068,169</b>	<b>8,624,570</b>	<b>3,748,284</b>	<b>63,970,006</b>
Manufacturing.....	31,022,811	4,870,875	8,560,418	1,562,119	7,891,892	3,155,016	57,063,131
Mining.....	3,471,368	38,541	1,564,970	506,050	732,678	593,268	6,906,875
<b>1940—Totals</b> .....	<b>44,992,162</b>	<b>5,875,390</b>	<b>14,000,064</b>	<b>2,298,992</b>	<b>11,120,699</b>	<b>6,961,701</b>	<b>85,249,008</b>
Manufacturing.....	41,402,487	5,797,070	12,360,737	1,754,791	10,172,976	6,205,343	77,693,404
Mining.....	3,589,675	78,320	1,639,327	544,201	947,723	756,358	7,555,604
<b>1941—Totals</b> .....	<b>58,379,870</b>	<b>6,501,557</b>	<b>19,327,851</b>	<b>2,510,183</b>	<b>13,205,368</b>	<b>10,835,406</b>	<b>110,760,235</b>
Manufacturing.....	54,493,713	6,388,464	17,734,137	1,896,184	12,554,559	9,819,759	102,886,816
Mining.....	3,886,157	113,093	1,593,714	613,999	650,809	1,015,647	7,873,419
<b>1942—Totals</b> .....	<b>70,827,232</b>	<b>7,116,436</b>	<b>22,861,610</b>	<b>2,929,772</b>	<b>14,160,303</b>	<b>12,225,864</b>	<b>130,121,217</b>
Manufacturing.....	66,546,304	7,002,130	21,345,936	2,213,637	13,180,067	11,224,569	121,512,643
Mining.....	4,280,928	114,306	1,515,674	716,135	980,236	1,001,295	8,608,574
<b>1943—Totals</b> .....	<b>80,037,816</b>	<b>7,377,250</b>	<b>23,909,494</b>	<b>3,199,480</b>	<b>15,990,467</b>	<b>12,182,624</b>	<b>142,697,131</b>
Manufacturing.....	75,400,290	7,260,866	22,402,629	2,469,573	15,198,110	11,272,877	134,004,345
Mining.....	4,637,526	116,384	1,506,865	729,907	792,357	909,747	8,692,786
<b>1944—Totals</b> .....	<b>83,973,253</b>	<b>8,014,333</b>	<b>22,888,542</b>	<b>2,761,940</b>	<b>17,934,592</b>	<b>10,610,227</b>	<b>146,182,887</b>
Manufacturing.....	79,206,583	7,909,168	21,822,975	2,340,460	16,890,106	9,714,478	137,883,770
Mining.....	4,766,670	105,165	1,065,567	421,480	1,044,486	895,749	8,299,117
<b>1945—Totals</b> .....	<b>77,176,420</b>	<b>7,709,248</b>	<b>22,485,148</b>	<b>2,545,001</b>	<b>15,942,593</b>	<b>10,579,124</b>	<b>136,437,534</b>
Manufacturing.....	72,544,436	7,606,247	21,333,878	2,229,111	15,078,350	9,592,233	128,384,255
Mining.....	4,631,984	103,001	1,151,270	315,890	864,243	986,891	8,053,279
<b>1946</b>							
<b>Prince Edward Island</b> ....	<b>80,433</b>	<b>2,895</b>	<b>5,365</b>	<b>6,176</b>	—	<b>19,434</b>	<b>114,306</b>
Manufacturing.....	80,433	2,898	5,365	6,176	—	19,434	114,306
Mining.....	—	—	—	—	—	—	—
<b>Nova Scotia</b> .....	<b>3,816,632</b>	<b>127,786</b>	<b>595,081</b>	<b>38,161</b>	<b>1,505,718</b>	<b>426,350</b>	<b>6,509,728</b>
Manufacturing.....	2,631,538	127,718	569,022	37,912	1,481,021	354,522	5,201,733
Mining.....	1,185,094	668	26,059	249	24,697	71,828	1,307,995

For footnotes, see end of table, p. 589.

**27.—Cost of Fuel Used in Manufacturing and Mining<sup>1</sup> Industries, 1939-47,  
with Details by Provinces, 1946 and 1947—continued**

Year and Province or Territory	Coal	Coke	Fuel Oils	Wood	Gas	Other Fuels <sup>2</sup>	Totals
	\$	\$	\$	\$	\$	\$	\$
<b>1946—concluded</b>							
<b>New Brunswick</b> .....	<b>4,205,671</b>	<b>36,892</b>	<b>318,095</b>	<b>162,560</b>	<b>38,774</b>	<b>352,978</b>	<b>5,114,970</b>
Manufacturing.....	4,092,276	36,892	312,128	161,994	21,806	335,330	4,960,426
Mining.....	113,395	—	5,967	566	16,968	17,648	154,544
<b>Quebec</b> .....	<b>21,838,935</b>	<b>1,257,173</b>	<b>7,300,786</b>	<b>1,183,189</b>	<b>2,919,856</b>	<b>3,056,576</b>	<b>37,556,515</b>
Manufacturing.....	20,662,425	1,253,332	6,807,208	1,025,632	2,919,611	2,645,456	35,313,664
Mining.....	1,176,510	3,841	493,578	157,557	245	411,120	2,242,851
<b>Ontario</b> .....	<b>36,724,988</b>	<b>4,376,331</b>	<b>11,987,469</b>	<b>697,439</b>	<b>7,921,032</b>	<b>5,048,043</b>	<b>66,665,302</b>
Manufacturing.....	35,786,326	4,368,295	11,584,331	465,502	7,777,833	4,664,027	64,646,314
Mining.....	938,662	8,036	403,138	141,937	143,199	384,016	2,018,988
<b>Manitoba</b> .....	<b>2,385,102</b>	<b>137,586</b>	<b>468,852</b>	<b>200,912</b>	<b>209,756</b>	<b>444,368</b>	<b>3,846,576</b>
Manufacturing.....	2,337,678	129,616	437,892	187,577	209,756	412,617	3,715,336
Mining.....	47,424	7,970	30,960	13,335	—	31,751	131,440
<b>Saskatchewan</b> .....	<b>1,178,504</b>	<b>5,508</b>	<b>669,390</b>	<b>50,307</b>	<b>284,610</b>	<b>294,226</b>	<b>2,482,545</b>
Manufacturing.....	1,055,609	4,637	499,963	50,307	284,610	224,094	2,119,220
Mining.....	122,895	871	169,427	—	—	70,132	363,325
<b>Alberta</b> .....	<b>1,165,121</b>	<b>20,864</b>	<b>143,927</b>	<b>23,374</b>	<b>1,830,487</b>	<b>496,570</b>	<b>3,680,343</b>
Manufacturing.....	674,954	20,864	110,331	16,891	976,484	368,812	2,168,336
Mining.....	490,167	—	33,596	6,483	854,003	127,758	1,512,007
<b>British Columbia</b> .....	<b>2,786,401</b>	<b>942,036</b>	<b>3,740,588</b>	<b>260,499</b>	<b>297,244</b>	<b>1,809,335</b>	<b>9,836,103</b>
Manufacturing.....	2,300,174	940,581	3,513,866	229,181	297,244	1,697,499	8,878,545
Mining.....	586,227	1,455	226,722	31,318	—	111,836	957,558
<b>Yukon and N.W.T.</b> .....	<b>4,813</b>	<b>200</b>	<b>144,610</b>	<b>76,516</b>	<b>—</b>	<b>50,087</b>	<b>276,226</b>
Manufacturing.....	3,250	—	32,358	8,099	—	18,233	61,940
Mining.....	1,563	200	112,252	68,417	—	31,854	214,286
<b>Canada</b> .....	<b>74,186,600</b>	<b>6,907,274</b>	<b>25,374,163</b>	<b>2,609,133</b>	<b>15,007,477</b>	<b>11,997,967</b>	<b>136,082,614</b>
Manufacturing.....	69,524,663	6,884,833	23,872,464	2,189,271	13,968,365	10,740,024	127,179,620
Mining.....	4,661,937	22,441	1,501,699	419,862	1,039,112	1,257,943	8,902,994
<b>1947</b>							
<b>Prince Edward Island</b> ....	<b>96,256</b>	<b>1,936</b>	<b>6,775</b>	<b>7,726</b>	<b>—</b>	<b>35,378</b>	<b>148,071</b>
Manufacturing.....	96,256	1,936	6,775	7,726	—	35,378	148,071
Mining.....	—	—	—	—	—	—	—
<b>Nova Scotia</b> .....	<b>4,265,955</b>	<b>89,840</b>	<b>813,509</b>	<b>45,313</b>	<b>1,576,980</b>	<b>530,425</b>	<b>7,352,022</b>
Manufacturing.....	3,269,880	89,474	808,123	45,313	1,553,058	444,890	6,210,738
Mining.....	996,075	366	35,386	—	23,922	85,535	1,141,284
<b>New Brunswick</b> .....	<b>5,513,495</b>	<b>29,271</b>	<b>562,876</b>	<b>142,816</b>	<b>39,372</b>	<b>452,741</b>	<b>6,740,571</b>
Manufacturing.....	5,349,635	29,271	546,947	142,341	29,953	428,124	6,526,271
Mining.....	163,860	—	15,929	475	9,419	24,617	214,300
<b>Quebec</b> .....	<b>27,307,788</b>	<b>1,602,105</b>	<b>11,704,551</b>	<b>1,092,386</b>	<b>3,399,623</b>	<b>4,243,240</b>	<b>49,349,693</b>
Manufacturing.....	25,993,157	1,593,117	10,926,244	948,700	3,399,524	3,733,227	46,593,969
Mining.....	1,314,631	8,988	778,307	143,686	99	510,013	2,755,724
<b>Ontario</b> .....	<b>45,205,568</b>	<b>5,522,790</b>	<b>18,321,579</b>	<b>617,920</b>	<b>9,756,482</b>	<b>6,410,191</b>	<b>85,834,530</b>
Manufacturing.....	44,192,605	5,511,681	17,601,018	464,755	9,596,545	5,921,989	83,288,593
Mining.....	1,012,963	11,109	720,561	153,165	159,937	488,202	2,545,937
<b>Manitoba</b> .....	<b>2,749,793</b>	<b>158,087</b>	<b>713,333</b>	<b>198,753</b>	<b>203,128</b>	<b>560,128</b>	<b>4,583,222</b>
Manufacturing.....	2,681,907	149,999	673,588	144,241	203,128	501,283	4,354,146
Mining.....	67,886	8,088	39,745	54,512	—	58,845	229,076
<b>Saskatchewan</b> .....	<b>1,214,624</b>	<b>6,357</b>	<b>931,380</b>	<b>49,569</b>	<b>306,533</b>	<b>336,378</b>	<b>2,844,841</b>
Manufacturing.....	1,064,890	5,581	657,421	49,527	306,533	248,572	2,332,524
Mining.....	149,734	776	273,959	42	—	87,806	512,317

<sup>1</sup>For footnotes, see end of table, p. 589.

**27.—Cost of Fuel Used in Manufacturing and Mining<sup>1</sup> Industries, 1939-47,  
with Details by Provinces for 1946 and 1947—concluded**

Year and Province or Territory	Coal	Coke	Fuel Oils	Wood	Gas	Other Fuels <sup>2</sup>	Totals
	\$	\$	\$	\$	\$	\$	\$
<b>1947—concluded</b>							
<b>Alberta</b> .....	<b>1,374,195</b>	<b>20,761</b>	<b>272,286</b>	<b>20,778</b>	<b>1,701,091</b>	<b>682,212</b>	<b>4,071,323</b>
Manufacturing.....	789,307	20,761	199,373	14,793	1,046,321	484,721	2,555,276
Mining.....	584,888	—	72,913	5,985	654,770	197,491	1,516,047
<b>British Columbia</b> .....	<b>3,311,610</b>	<b>1,058,076</b>	<b>5,817,043</b>	<b>177,993</b>	<b>357,166</b>	<b>2,362,160</b>	<b>13,084,048</b>
Manufacturing.....	2,441,375	1,057,410	5,458,329	155,379	357,166	2,209,831	11,679,490
Mining.....	870,235	666	358,714	22,614	—	152,329	1,404,558
<b>Yukon and N.W.T.</b> .....	<b>5,254</b>	<b>—</b>	<b>505,838</b>	<b>111,025</b>	<b>—</b>	<b>81,628</b>	<b>703,745</b>
Manufacturing.....	3,800	—	93,789	7,957	—	18,879	124,425
Mining.....	1,454	—	412,049	103,068	—	62,749	579,320
<b>Canada</b> .....	<b>91,044,538</b>	<b>8,489,223</b>	<b>39,679,170</b>	<b>2,464,279</b>	<b>17,340,375</b>	<b>15,694,481</b>	<b>174,712,066</b>
Manufacturing.....	85,882,812	8,459,230	36,971,607	1,980,732	16,492,228	14,026,894	163,813,503
Mining.....	5,161,726	29,993	2,707,563	483,547	848,147	1,667,587	10,898,563

<sup>1</sup> For heating purposes and power only. Fuel used for the refining industry excluded.  
gasoline and kerosene.

<sup>2</sup> Includes

# CHAPTER XVII.—MANUFACTURES

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

This Chapter deals with manufacturing industries in Canada in two main Parts. Part I gives general analyses of manufactures including: the historical development of manufacturing in Canada in so far as statistical data are available; production by industrial groups and individual industries, i.e., a detailed treatment of current production under various groupings and individual industries; and general analyses of the principal factors in manufacturing production under such sub-headings as salaries and wages and size of establishment. Part II deals with the provincial and local distribution of manufacturing production.

With regard to the first section of Part I, dealing with growth of manufacturing, it is impossible to give absolutely comparable statistics over a long period of years. From 1870 to 1915 statistics were collected only in connection with decennial or quinquennial censuses, and there was inevitably some variation in the information collected. The annual Census of Manufactures was instituted in 1917 and, while numerous changes have been made since then in the information collected and the treatment of the data, an effort has been made to carry all major revisions, in so far as possible, back to 1917, so that the figures for the period since then are on a reasonably comparable basis.

The far-reaching influence of the First World War was, of course, the outstanding factor in the growth recorded up to 1939. It was during these years that Canadian manufactures began to develop on a really large scale. Munitions contracts placed by the Imperial Munitions Board in Canada in those years totalled well over \$1,000,000,000 and these did not include such fields of production as shipbuilding and aviation. Shipbuilding construction alone amounted to \$35,000,000\* in 1917, \$75,000,000 in 1918 and \$86,000,000 in 1919. In the same three years employees in the shipbuilding industry numbered 12,000, 22,000 and 25,000, respectively.

\* Revised in the General Manufactures Section, Census of Industry and Merchandising Division, Dominion Bureau of Statistics.



Canada's effort in the Second World War brought manufacturing production to a much higher level than ever before. The tremendous increase in production is indicated by the increases in some of the main factors of production between 1939 and the highest point attained during the War. For manufacturing as a whole there was an increase of 161 p.c. in the gross value of production, 162 p.c. in the value added by manufacture, 89 p.c. in the number of persons employed, and 175 p.c. in the salaries and wages paid.

As was to be expected, the industries producing the munitions and equipment needed by the Armed Forces during the War were the first to feel the effects of the cessation of hostilities. Consequently, the chemicals and allied products group suffered the greatest decline in production as measured by employment, with a drop of 54 p.c. in the number of persons employed since 1944, the last full year of war production. This was followed by the iron and its products group with a drop of 39 p.c.; non-ferrous metal products 19 p.c.; and miscellaneous industries 16 p.c. On the other hand, industries producing food, clothing and other consumer goods reported increases in production. Employment in the wood and paper products group was 18 p.c. higher, followed by an increase of 16 p.c. for non-metallic mineral products, 9 p.c. for animal products, 8 p.c. for textiles and 5 p.c. for vegetable products. Altogether there was a drop of 13 p.c. in the number of employees.

Of the forty leading industries in 1946, a number reported substantial declines in the volume of production as measured by the number of persons employed. Employment in the aircraft industry declined by 68,167 between 1944 and 1946, followed by shipbuilding with a drop of 46,830, miscellaneous chemical products 46,108, miscellaneous iron and steel products 30,862, non-ferrous metal smelting and refining 9,381, scientific and professional equipment 7,618, brass and copper products 7,381, primary iron steel 6,567, automobile supplies 5,018, electrical apparatus and supplies 4,836, etc. On the other hand, employment in the pulp and paper industry increased by 7,071, sawmills 5,836, women's factory clothing 4,153, leather boots and shoes 3,696, printing and publishing 3,134, bread and other bakery products 2,923, hosiery and knit goods 2,002, fish-curing and -packing 1,663, breweries 1,519, etc.

Geographically the percentage changes in manufacturing production between 1944 and 1946 were as follows:—

Province	1946 Compared with 1944			1946 Compared with 1945		
	Number of Employees	Salaries and Wages	Gross Value of Products	Number of Employees	Salaries and Wages	Gross Value of Products
Prince Edward Island....	-18.0	- 2.6	+ 4.5	- 5.2	- 1.7	- 3.3
Nova Scotia.....	-21.4	-28.2	-12.5	-11.1	-16.7	-10.5
New Brunswick.....	- 1.9	+ 2.5	+12.3	+ 1.0	+ 2.3	+ 9.0
Quebec.....	-15.8	-15.3	-14.7	- 7.0	- 6.8	- 1.3
Ontario.....	-11.7	-13.3	-13.5	- 3.8	- 4.2	- 5.3
Manitoba.....	- 6.3	- 2.8	- 0.1		+ 2.0	+ 3.6
Saskatchewan.....	- 3.3	+ 1.4	- 4.0	+ 2.9	+ 6.2	+ 0.4
Alberta.....	+ 2.1	+ 5.1	+ 1.6	+ 5.4	+ 6.7	+ 3.5
British Columbia.....	-21.4	-23.0	- 1.7	-14.2	-14.3	+ 2.5
Totals .....	-13.5	-14.2	-11.4	- 5.5	- 5.7	- 2.6

## PART I.—GENERAL ANALYSES OF MANUFACTURING

## Section 1.—Growth of Manufacturing

This Section describes the growth of manufacturing as shown by comparable principal statistics, i.e., establishments, capital, employees, salaries and wages paid, cost of materials, and values of products. Other comparisons are given in Table 4 and consumption figures in Table 5.

## 1.—Historical Summary of Statistics of Manufactures, 1917-47

NOTE.—Statistics from 1870 to 1917 are not on a comparable basis to the series given below. They will be found in Table 1 in former editions. Non-ferrous metal smelting industries were included for the first time in 1925.

Year	Estab- lish- ments	Capital	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products <sup>1</sup>	Gross Value of Products
	No.	\$	No.	\$	\$	\$	\$
1917.....	21,845	2,333,991,229	606,523	497,801,844	1,539,678,811	1,281,131,980	2,820,810,791
1918.....	21,777	2,518,197,329	602,179	567,991,171	1,827,631,548	1,399,794,849	3,227,426,397
1919.....	22,083	2,670,559,435	594,066	601,715,668	1,779,056,765	1,442,400,638	3,221,457,403
1920.....	22,532	2,923,667,011	598,893	717,493,876	2,085,271,649	1,621,273,348	3,706,544,997
1921.....	20,848	2,697,858,073	438,555	497,399,761	1,365,292,885	1,123,694,263	2,488,987,148
1922.....	21,016	2,667,493,290	456,256	489,397,230	1,272,651,585	1,103,266,106	2,375,917,691
1923.....	21,080	2,788,051,630	506,203	549,529,631	1,456,595,367	1,206,332,107	2,662,927,474
1924.....	20,709	2,895,317,508	487,610	534,467,675	1,422,573,946	1,075,458,459	2,570,561,931
1925 <sup>2</sup> .....	20,981	3,065,730,916	522,924	569,944,442	1,571,788,252	1,167,936,726	2,816,864,958
1926 <sup>2</sup> .....	21,301	3,208,071,197	559,161	625,682,242	1,712,519,991	1,305,168,549	3,100,604,637
1927 <sup>2</sup> .....	21,501	3,454,825,529	595,052	662,705,332	1,741,128,711	1,427,649,292	3,257,214,876
1928 <sup>2</sup> .....	21,973	3,804,062,566	631,429	721,471,634	1,894,027,188	1,597,887,676	3,582,345,302
1929 <sup>2</sup> .....	22,216	4,004,892,009	666,531	777,291,217	2,029,670,813	1,755,386,937	3,883,446,116
1930 <sup>2</sup> .....	22,618	4,041,030,475	614,696	697,555,378	1,664,787,763	1,522,737,125	3,280,236,603
1931.....	23,083	3,705,701,893	528,640	587,566,990	1,221,911,982	1,252,017,248	2,555,126,448
1932.....	23,102	3,380,475,509	468,833	473,601,716	954,381,097	955,960,724	1,980,471,543
1933.....	23,780	3,279,259,838	468,658	436,247,824	967,788,928	919,671,181	1,954,075,785
1934.....	24,209	3,249,348,864	519,812	503,851,055	1,229,513,621	1,087,301,742	2,393,692,729
1935.....	24,034	3,216,408,127	556,664	559,467,777	1,419,146,217	1,153,485,104	2,653,911,209
1936.....	24,202	3,271,263,531	594,359	612,071,434	1,624,213,996	1,289,592,672	3,002,403,812
1937.....	24,834	3,465,227,831	660,451	721,727,037	2,006,926,787	1,508,924,867	3,625,459,500
1938.....	25,200	3,485,683,018	642,016	705,668,589	1,807,478,028	1,428,286,778	3,337,681,366
1939.....	24,805	3,647,024,449	658,114	737,811,153	1,836,159,375	1,531,051,901	3,474,783,528
1940.....	25,513	4,095,716,836	702,244	920,872,865	2,449,721,903	1,942,471,238	4,529,173,316
1941.....	26,293	4,905,503,966	961,178	1,264,862,643	3,296,547,019	2,605,119,788	6,076,308,124
1942.....	27,862	5,488,785,545	1,152,091	1,682,804,842	4,037,102,725	3,309,973,758	7,553,794,972
1943.....	27,652	6,317,166,727	1,241,068	1,987,292,384	4,690,493,083	3,816,413,541	8,732,860,999
1944.....	28,483	"	1,222,882	2,029,621,370	4,832,333,356	4,015,776,010	9,073,692,519
1945.....	29,050	"	1,119,372	1,845,773,449	4,473,668,847	3,564,315,899	8,250,368,866
1946.....	31,249	"	1,058,156	1,740,687,254	4,358,234,766	3,467,004,980	8,035,692,471
1947.....	32,734	"	1,131,750	2,085,925,966	5,534,280,019	4,292,055,802	10,081,026,580

<sup>1</sup> The net value of production is computed by subtracting the cost of fuel and electricity and the cost of materials from the gross value of the products. The figures for 1924 and later years have been revised accordingly; statistics for cost of electricity are not available for years prior to 1924.

<sup>2</sup> A change in the method of computing the number of wage-earners in the years 1925 to 1930, inclusive, increased the number over that which the method otherwise used would have given. In 1931, however, the method in force prior to 1925 was re-adopted. Figures from 1931 are, therefore, comparable with those prior to 1925.

<sup>3</sup> Not collected.

## 2.—Summary Statistics of Manufactures, by Provinces, Significant Years, 1917-47

Province and Year	Estab-lish-ments	Capital	Em-employees	Salaries and Wages	Cost of Materials	Net Value of Products <sup>1</sup>	Gross Value of Products
	No.	\$	No.	\$	\$	\$	\$
<b>Prince Edward Island—</b>							
1917.....	411	2,008,082	1,556	663,251	3,087,621	1,750,135	4,837,756
1920.....	370	2,328,686	1,287	855,210	4,164,223	2,135,857	6,300,080
1922.....	340	2,446,574	1,086	593,660	2,620,235	1,660,282	4,280,517
1929 <sup>2</sup> .....	263	2,646,354	2,074	727,286	2,862,725	1,466,446	4,408,608
1933.....	249	2,256,307	991	529,684	1,590,834	1,126,826	2,775,787
1937.....	240	2,637,472	1,062	607,547	2,386,091	1,117,298	3,566,991
1939.....	222	2,682,900	1,085	617,945	2,239,117	1,243,979	3,543,681
1943.....	230	3,881,832	1,552	1,298,112	6,432,079	3,021,848	9,577,446
1944.....	241	"	1,786	1,694,763	6,993,510	3,570,835	10,713,644
1945.....	234	"	1,851	1,679,212	8,242,949	3,178,434	11,592,753
1946.....	246	"	1,755	1,651,469	7,582,046	3,469,435	11,200,310
1947.....	260	"	1,906	1,938,467	8,610,332	3,849,353	12,653,451
<b>Nova Scotia—</b>							
1917.....	1,337	124,357,851	25,252	18,838,051	102,415,215	57,565,703	159,980,918
1920.....	1,345	135,679,188	23,425	25,625,039	85,724,785	61,371,243	147,096,028
1922.....	1,092	98,117,897	13,678	11,586,235	37,980,329	27,516,271	65,496,600
1929 <sup>2</sup> .....	1,094	118,951,398	19,986	16,905,885	50,725,562	35,676,421	89,787,548
1933.....	1,277	92,004,624	12,211	9,604,680	25,354,319	19,988,257	47,912,432
1937.....	1,135	94,756,601	18,088	16,727,338	46,964,053	33,146,796	84,393,656
1939.....	1,083	101,954,082	17,627	16,651,685	43,332,195	35,885,563	83,173,644
1943.....	1,278	179,363,703	37,445	55,205,712	96,551,817	84,909,686	188,463,088
1944.....	1,281	"	37,812	59,940,411	103,463,123	93,376,638	204,421,664
1945.....	1,297	"	33,423	51,703,245	107,860,539	84,358,189	199,775,177
1946.....	1,397	"	29,724	43,060,259	100,354,480	71,738,873	178,793,420
1947.....	1,480	"	30,285	46,113,036	111,354,221	84,935,517	204,219,433
<b>New Brunswick—</b>							
1917.....	943	60,300,907	19,710	12,893,014	32,380,621	27,027,725	59,408,346
1920.....	901	101,216,395	19,007	19,266,821	60,812,641	45,803,164	106,615,805
1922.....	846	77,036,627	13,934	11,801,670	38,032,967	25,163,444	63,196,411
1929 <sup>2</sup> .....	803	91,376,948	17,952	15,127,716	39,800,366	26,640,786	68,145,012
1933.....	747	90,148,317	11,336	9,308,100	20,442,421	18,166,713	41,345,622
1937.....	805	89,797,697	15,612	14,563,310	36,983,284	28,770,727	69,479,207
1939.....	803	91,171,323	14,501	13,659,162	35,617,614	27,041,195	66,058,151
1943.....	862	111,287,910	23,225	30,451,181	76,711,513	58,956,676	140,934,879
1944.....	937	"	23,164	32,345,080	83,993,599	62,258,478	152,106,577
1945.....	889	"	22,503	32,408,048	87,235,347	63,380,075	156,623,378
1946.....	993	"	22,732	33,151,919	96,389,299	67,783,377	170,753,741
1947.....	1,061	"	24,181	39,583,393	116,491,443	83,487,984	208,366,438
<b>Quebec—</b>							
1917.....	7,032	662,012,975	188,043	141,008,616	385,212,984	380,882,409	766,095,393
1920.....	7,530	878,859,638	183,748	202,516,550	553,558,520	499,643,217	1,053,201,737
1922.....	7,190	800,859,568	143,584	139,876,821	333,298,544	346,020,126	679,818,670
1929 <sup>2</sup> .....	6,948	1,246,208,650	206,580	225,226,808	537,270,055	537,796,395	1,108,592,775
1933.....	7,856	1,035,339,591	157,481	134,696,386	292,560,568	288,504,782	604,496,078
1937.....	8,518	1,117,772,721	219,033	216,971,207	562,889,160	445,885,666	1,046,470,796
1939.....	8,373	1,182,538,441	220,321	223,757,767	536,823,039	470,385,279	1,054,757,585
1943.....	9,372	2,230,620,386	437,247	658,323,620	1,483,627,797	1,280,097,615	2,852,191,853
1944.....	9,656	"	424,115	668,156,053	1,494,253,053	1,350,519,134	2,929,685,183
1945.....	10,038	"	384,031	607,473,443	1,307,534,193	1,149,390,919	2,531,903,830
1946.....	10,818	"	357,276	565,986,105	1,297,099,099	1,125,991,848	2,497,971,521
1947.....	11,223	"	379,449	662,837,614	1,601,055,840	1,324,397,690	3,017,049,422
<b>Ontario—</b>							
1917.....	9,061	1,157,850,643	299,389	258,393,065	794,556,502	662,174,261	1,456,730,763
1920.....	9,113	1,464,097,346	295,674	362,941,317	1,071,843,374	792,267,562	1,864,110,936
1922.....	8,703	1,400,041,955	235,070	265,818,003	674,025,732	572,098,704	1,246,124,436
1929 <sup>2</sup> .....	9,348	1,986,736,556	328,533	406,622,627	1,056,530,202	916,971,816	2,020,492,433
1933.....	9,542	1,587,947,947	224,816	220,530,088	464,544,563	465,103,842	958,776,858
1937.....	9,796	1,674,806,201	321,743	373,018,048	1,025,871,741	804,703,114	1,880,388,188
1939.....	9,824	1,762,571,669	318,871	378,376,209	907,011,461	791,428,569	1,745,674,707
1943.....	10,587	2,994,953,988	570,017	956,399,212	2,278,871,511	1,844,651,587	4,221,101,063
1944.....	10,731	"	564,392	975,038,060	2,310,347,858	1,930,043,913	4,339,797,784
1945.....	10,869	"	518,056	882,483,387	2,145,290,603	1,729,938,199	3,965,069,021
1946.....	11,424	"	498,120	845,216,547	2,001,900,592	1,650,284,622	3,754,523,701
1947.....	11,860	"	537,581	1,037,976,714	2,651,697,573	2,136,014,184	4,903,472,526

<sup>1</sup>See footnote 1, Table 1.<sup>2</sup>See footnote 2, Table 1.<sup>3</sup>Not collected.



## 2.—Summary Statistics of Manufactures, by Provinces, Significant Years, 1917-47— concluded

Province or Territory and Year	Establishments	Capital	Employees	Salaries and Wages	Cost of Materials	Net Value of Products <sup>1</sup>	Gross Value of Products
	No.	\$	No.	\$	\$	\$	\$
<b>Manitoba—</b>							
1917.....	732	82,566,858	18,939	16,513,423	69,715,149	42,280,801	111,995,950
1920.....	747	94,424,145	23,728	32,372,081	82,729,271	62,776,912	155,506,183
1922.....	697	65,172,676	13,076	16,853,345	54,373,811	36,842,899	91,216,710
1929 <sup>2</sup> .....	861	121,363,898	24,012	31,224,596	87,832,324	63,925,015	155,266,294
1933.....	1,010	100,074,404	18,871	18,687,430	44,579,998	37,390,275	83,934,777
1937.....	1,043	119,363,026	23,706	27,198,978	87,684,514	49,950,465	140,805,451
1939.....	1,087	119,659,365	23,910	28,444,798	82,408,293	48,810,544	134,293,595
1943.....	1,245	173,752,507	37,003	53,841,825	200,464,756	99,146,670	304,867,912
1944.....	1,290	"	40,937	62,753,081	226,234,925	120,339,926	352,334,594
1945.....	1,302	"	38,367	59,814,109	216,114,576	117,775,126	339,821,283
1946.....	1,357	"	38,367	61,018,345	223,096,935	122,780,805	351,887,099
1947.....	1,413	"	39,378	68,972,653	236,936,343	139,373,521	383,130,281
<b>Saskatchewan—</b>							
1917.....	560	24,372,585	6,230	5,403,332	22,040,674	13,894,179	35,934,853
1920.....	554	24,640,520	6,709	9,571,175	34,894,105	22,610,861	57,504,966
1922.....	490	22,734,469	3,494	4,734,885	22,366,129	13,186,266	35,552,395
1929 <sup>2</sup> .....	594	43,925,797	7,025	9,105,597	51,003,566	23,002,952	75,368,605
1933.....	673	38,688,433	4,782	4,848,763	19,124,030	11,478,634	31,559,387
1937.....	689	39,279,050	6,107	6,758,154	43,782,999	17,068,655	62,205,884
1939.....	737	37,654,095	6,475	7,346,127	38,782,135	20,283,273	60,650,589
1943.....	976	60,674,093	11,683	16,445,866	111,193,185	37,895,459	152,123,360
1944.....	1,054	"	12,361	17,703,103	131,215,017	40,833,333	175,349,234
1945.....	926	"	11,617	16,905,606	126,279,202	38,275,127	167,688,133
1946.....	955	"	11,957	17,956,317	126,595,761	38,459,630	168,356,619
1947.....	1,001	"	11,723	19,661,970	151,449,021	41,480,520	196,452,199
<b>Alberta—</b>							
1917.....	636	49,146,241	9,461	8,662,417	42,632,212	23,883,673	66,515,885
1920.....	666	48,310,655	10,955	15,210,628	56,139,646	29,812,891	85,952,537
1922.....	556	41,154,178	6,516	8,293,572	30,189,648	18,939,659	49,129,307
1929 <sup>2</sup> .....	736	81,875,952	12,216	14,585,734	62,500,175	36,824,969	100,966,196
1933.....	874	69,604,563	9,753	9,573,468	29,425,975	18,876,929	49,395,514
1937.....	895	70,804,070	12,524	13,903,062	55,898,599	28,923,095	86,225,699
1939.....	961	73,284,225	12,712	14,977,700	53,151,149	32,618,153	87,474,080
1943.....	1,133	111,682,419	20,613	29,494,369	142,057,051	65,796,813	211,159,142
1944.....	1,165	"	22,136	33,227,729	172,082,537	77,415,753	252,949,894
1945.....	1,157	"	21,486	32,760,326	166,198,136	78,547,626	248,287,504
1946.....	1,315	"	22,649	34,939,088	169,425,176	83,735,011	257,031,867
1947.....	1,382	"	23,941	41,246,171	202,324,036	89,289,825	296,054,129
<b>British Columbia—<sup>4</sup></b>							
1917.....	1,133	171,375,087	37,943	35,426,675	87,637,833	71,673,094	159,310,927
1920.....	1,306	174,110,438	34,360	49,135,005	125,405,084	104,851,641	230,256,725
1922.....	1,102	159,929,346	25,818	29,839,039	79,764,190	61,838,455	141,602,645
1929 <sup>2</sup> .....	1,569	311,806,456	48,153	57,764,968	141,145,838	113,082,137	260,418,645
1933.....	1,552	263,195,652	28,417	28,469,225	70,166,220	59,034,923	133,879,330
1937.....	1,713	256,011,093	42,576	51,979,393	144,466,346	99,359,051	251,924,258
1939.....	1,710	274,969,502	42,554	53,881,994	136,655,872	103,263,292	261,948,600
1943.....	1,961	450,360,048	102,221	185,711,773	294,445,005	341,699,478	652,046,313
1944.....	2,116	"	96,062	178,639,118	303,560,016	337,137,197	655,844,689
1945.....	2,326	"	87,974	160,419,133	305,759,836	307,954,519	628,903,124
1946.....	2,731	"	75,484	137,506,645	335,708,533	293,352,652	644,527,898
1947.....	3,040	"	83,161	167,282,667	453,670,677	388,702,178	858,284,592
<b>Yukon and N.W.T.—</b>							
1939.....	5	538,847	55	97,766	138,500	92,054	242,968
1943.....	8	589,841	62	120,714	138,369	237,709	395,943
1944.....	12	"	67	118,972	189,718	280,803	489,256
1945.....	12	"	64	126,940	153,466	517,685	704,663
1946.....	13	"	92	200,560	172,845	408,727	646,295
1947.....	14	"	145	313,281	690,533	525,030	1,344,100

<sup>1</sup> See footnote 1, Table 1.  
Yukon up to 1937.<sup>2</sup> See footnote 2, Table 1.<sup>3</sup> Not collected.<sup>4</sup> Includes



## 3.—Summary Statistics of Manufactures, by Industrial Groups, Significant Years, 1917-47

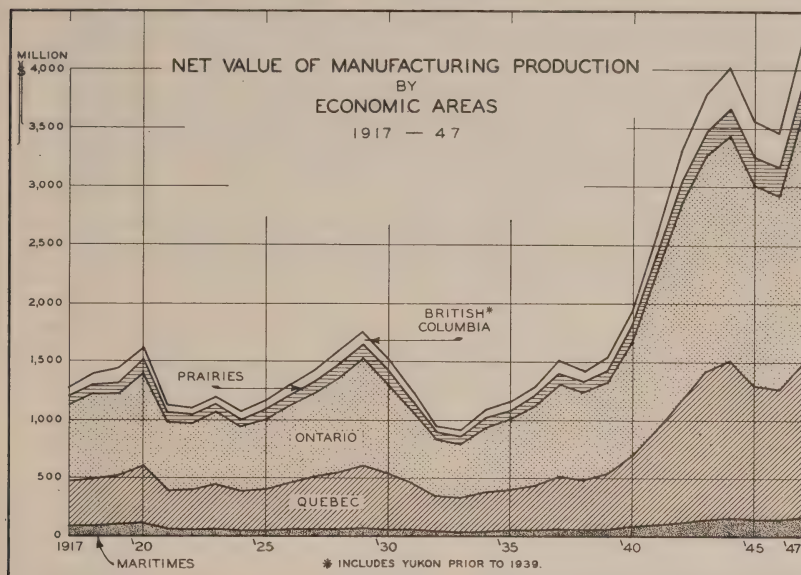
Industrial Group and Year	Establishments	Capital	Employees	Salaries and Wages	Cost of Materials	Net Value of Products <sup>1</sup>	Gross Value of Products
	No.	\$	No.	\$	\$	\$	\$
<b>Vegetable Products—</b>							
1917.....	4,151	279,627,827	62,777	45,915,557	367,214,061	183,782,501	550,996,562
1920.....	4,549	402,383,047	74,241	77,750,189	536,828,044	239,328,371	776,156,415
1922.....	4,638	379,567,139	64,753	66,228,286	333,295,009	210,835,301	544,130,310
1929 <sup>2</sup> .....	5,350	581,820,861	91,032	95,853,121	431,595,751	341,688,938	783,706,883
1933.....	5,916	522,389,736	75,416	68,535,349	226,879,373	196,820,952	432,315,617
1937.....	5,968	539,551,357	94,258	94,632,901	395,491,147	266,869,693	672,540,163
1939.....	5,872	539,446,225	99,447	104,248,755	356,726,153	292,129,840	659,624,014
1943.....	5,913	684,292,303	117,243	157,733,379	635,042,582	410,340,183	1,062,561,932
1944.....	5,941	"	130,679	183,943,948	763,606,750	485,551,491	1,270,518,297
1945.....	5,862	"	135,311	196,010,688	802,367,469	529,112,219	1,352,986,147
1946.....	5,916	"	137,170	206,893,681	871,436,061	575,963,454	1,649,914,130
1947.....	6,032	"	144,290	241,154,208	1,102,727,365	654,939,477	1,782,339,081
<b>Animal Products—</b>							
1917.....	5,486	207,165,245	46,994	35,753,133	320,302,039	124,103,990	444,406,029
1920.....	4,823	221,792,457	48,687	54,291,606	400,496,354	152,995,130	553,491,484
1922.....	5,118	201,829,414	49,595	49,933,679	264,078,631	107,473,382	371,552,013
1929 <sup>2</sup> .....	4,490	243,825,065	67,670	62,081,423	345,351,882	127,929,857	477,761,855
1933.....	4,496	201,993,642	53,111	46,453,188	179,429,948	87,629,444	271,068,210
1937.....	4,435	230,312,163	67,996	64,816,361	326,537,087	118,117,971	449,783,908
1939.....	4,362	250,335,831	69,358	68,231,871	333,647,306	122,821,410	461,983,262
1943.....	4,380	324,811,863	88,037	114,467,581	750,435,541	211,149,715	971,190,128
1944.....	4,388	"	94,195	129,215,389	835,586,247	246,064,720	1,092,015,647
1945.....	4,470	"	98,267	138,405,263	839,885,434	261,069,677	1,111,929,735
1946.....	4,528	"	102,844	151,517,837	849,242,804	271,279,430	1,132,233,769
1947.....	4,457	"	102,106	166,221,365	929,179,962	316,673,669	1,259,170,471
<b>Textiles and Textile Products—</b>							
1917.....	1,067	191,338,745	76,978	47,764,436	131,225,032	109,904,530	241,129,562
1920.....	1,304	302,758,185	87,730	84,433,609	256,233,300	173,741,035	429,974,335
1922.....	1,089	259,324,870	80,558	69,685,529	151,333,320	142,577,057	293,910,377
1929 <sup>2</sup> .....	1,534	360,762,584	103,881	94,969,433	217,954,088	180,469,064	403,205,809
1933.....	1,740	298,730,436	95,707	72,813,424	143,184,861	131,065,902	279,475,267
1937.....	1,941	322,204,180	121,677	105,056,051	219,813,775	174,076,945	400,383,726
1939.....	1,930	347,248,927	121,022	107,117,035	203,618,197	181,927,898	392,657,759
1943.....	2,384	455,056,029	157,987	191,305,628	446,136,675	334,242,717	790,659,927
1944.....	2,481	"	153,122	195,805,681	419,988,642	351,185,488	781,771,688
1945.....	2,740	"	158,148	207,629,471	429,208,436	367,980,705	807,722,241
1946.....	3,082	"	164,737	228,018,323	459,664,221	418,293,665	888,658,943
1947.....	3,216	"	176,065	268,104,889	560,634,708	489,983,044	1,062,041,265
<b>Wood and Paper Products—</b>							
1917.....	7,263	536,320,247	152,277	113,359,997	148,277,935	245,372,487	393,650,422
1920.....	7,881	774,937,232	144,391	172,368,578	309,813,724	417,256,115	727,069,839
1922.....	6,966	761,020,831	118,364	132,092,249	206,860,089	283,006,200	489,866,289
1929 <sup>2</sup> .....	7,392	1,151,463,962	164,572	192,088,948	313,797,201	381,485,477	724,972,306
1933.....	7,891	892,652,622	105,080	102,213,652	134,663,641	184,233,540	341,336,701
1937.....	8,497	927,070,757	147,254	165,298,485	256,269,941	306,961,553	597,061,878
1939.....	8,538	960,804,672	144,782	165,287,455	246,292,820	303,662,441	579,892,183
1943.....	9,974	1,103,984,216	183,865	264,844,792	447,399,954	508,835,982	1,001,563,243
1944.....	10,452	"	189,674	284,436,559	497,656,158	550,826,986	1,093,725,822
1945.....	10,653	"	199,373	306,179,416	551,143,890	586,057,023	1,184,650,720
1946.....	11,994	"	224,121	360,049,562	679,343,485	749,055,011	1,484,436,122
1947.....	12,985	"	248,450	460,371,358	895,117,041	991,750,398	1,954,298,347
<b>Iron and Its Products—</b>							
1917.....	1,495	695,677,552	161,745	161,875,424	378,193,116	371,792,489	749,985,605
1920.....	1,789	726,371,335	164,087	231,595,911	377,499,134	411,875,057	789,374,191
1922.....	1,083	567,011,222	78,565	95,443,053	171,529,909	170,769,391	342,299,300
1929 <sup>2</sup> .....	1,224	826,063,942	142,772	203,740,658	405,818,468	367,465,582	790,726,338
1933.....	1,334	614,632,403	73,348	72,296,179	98,793,191	109,198,169	216,828,992
1937.....	1,345	651,398,528	127,148	163,261,130	328,091,063	280,165,582	624,819,877
1939.....	1,394	697,893,720	122,342	158,559,728	262,292,781	275,774,796	553,468,880
1943.....	2,044	1,852,506,052	435,744	833,383,684	1,131,858,008	1,396,768,112	2,575,976,547
1944.....	2,192	"	411,944	818,452,454	1,104,083,922	1,390,703,087	2,540,992,974
1945.....	2,188	"	321,719	637,333,990	887,425,621	1,046,097,484	1,975,310,983
1946.....	2,358	"	249,279	475,812,983	635,344,199	735,459,371	1,405,542,865
1947.....	2,469	"	263,482	559,968,501	871,965,295	939,220,774	1,854,915,562

<sup>1</sup> See footnote 1, Table 1.<sup>2</sup> See footnote 2, Table 1.<sup>3</sup> Not collected.

### 3. Summary Statistics of Manufactures, by Industrial Groups, Significant Years, 1917-47—concluded

Industrial Group and Year	Establishments	Capital	Employees	Salaries and Wages	Cost of Materials	Net Value of Products <sup>1</sup>	Gross Value of Products
	No.	\$	No.	\$	\$	\$	\$
<b>Non-Ferrous Metal Products—</b>							
1917.....	296	69,421,911	18,220	15,898,890	46,445,469	41,039,351	87,484,820
1920.....	324	109,382,033	23,162	27,895,343	48,434,120	52,847,178	101,281,293
1922.....	325	102,208,275	18,222	21,451,629	30,861,895	39,993,798	70,855,693
1929 <sup>2</sup> .....	408	298,721,106	39,867	54,501,806	124,900,632	150,415,215	283,545,666
1933.....	478	266,266,443	25,273	28,099,026	71,990,608	88,427,984	164,765,604
1937.....	526	306,522,643	44,614	57,722,728	282,532,128	182,968,223	482,440,562
1939.....	526	346,489,890	44,563	59,684,858	242,063,177	155,808,806	416,060,459
1943.....	597	674,802,402	109,522	186,874,396	615,283,895	369,005,912	1,034,390,379
1944.....	635	3	104,314	182,909,292	549,317,062	399,498,519	992,345,975
1945.....	683	3	88,350	158,358,737	429,913,071	316,572,975	779,384,900
1946.....	740	3	84,853	150,366,178	413,022,247	278,461,262	719,191,106
1947.....	799	3	96,080	194,937,554	596,648,463	402,021,896	1,034,580,717
<b>Non-Metallic Mineral Products—</b>							
1917.....	1,075	145,423,082	20,795	18,224,724	36,994,392	58,092,396	95,086,788
1920.....	846	215,281,921	25,500	32,351,764	69,856,558	80,205,472	150,062,030
1922.....	812	230,486,004	20,932	25,401,278	60,671,305	74,022,607	134,693,912
1929 <sup>2</sup> .....	843	316,692,818	29,257	38,958,390	112,573,103	99,065,847	229,774,300
1933.....	770	295,139,543	16,975	19,282,401	69,077,701	52,817,078	131,325,706
1937.....	823	287,473,542	23,837	30,389,958	115,938,578	77,667,225	208,205,148
1939.....	809	290,865,285	23,026	30,067,934	107,979,292	85,511,631	208,166,781
1943.....	747	351,164,254	30,994	53,282,340	215,139,225	146,460,170	388,713,942
1944.....	748	3	31,590	56,130,338	234,714,319	152,525,053	416,268,879
1945.....	789	3	32,525	57,193,679	231,341,920	145,197,043	405,736,477
1946.....	910	3	36,493	63,848,640	240,485,869	173,638,196	446,484,682
1947.....	943	3	39,212	79,146,075	323,687,397	199,351,736	563,119,918
<b>Chemicals and Allied Products—</b>							
1917.....	539	175,836,690	56,153	51,505,484	99,068,092	131,381,995	230,450,087
1920.....	464	122,123,730	17,653	22,193,421	62,644,608	65,183,212	127,827,820
1922.....	469	118,025,483	14,082	16,770,503	37,650,061	48,981,277	86,631,338
1929 <sup>2</sup> .....	554	165,886,912	16,694	22,639,449	55,184,337	78,785,911	138,545,221
1933.....	696	153,900,930	15,397	18,738,629	34,271,854	55,394,284	92,420,761
1937.....	754	161,165,068	21,968	28,612,719	64,460,947	79,290,240	148,973,220
1939.....	808	172,459,365	22,595	31,567,558	65,280,839	89,046,832	159,536,984
1943.....	945	759,804,951	92,288	143,677,194	368,111,343	379,453,873	765,217,887
1944.....	981	3	81,822	137,422,977	360,412,749	355,260,598	733,569,232
1945.....	973	3	60,723	106,017,985	212,197,636	249,701,603	478,532,689
1946.....	1,017	3	37,278	66,538,532	159,308,350	203,639,442	376,288,264
1947.....	1,031	3	38,491	77,479,719	205,541,145	228,786,192	449,959,792
<b>Miscellaneous Industries—</b>							
1917.....	473	33,179,930	10,584	7,504,199	11,958,675	15,662,241	27,620,916
1920.....	552	48,637,071	13,442	14,613,455	23,465,807	27,841,778	51,307,583
1922.....	516	48,020,052	11,185	12,391,024	16,371,366	25,607,093	41,978,453
1929 <sup>2</sup> .....	421	59,654,759	10,786	12,457,989	22,495,351	28,081,046	51,207,730
1933.....	459	33,554,083	8,351	7,810,976	9,497,751	14,083,738	24,138,927
1937.....	545	39,549,593	11,699	11,936,704	17,792,121	22,807,435	41,251,081
1939.....	566	41,480,534	12,280	13,045,929	18,308,810	24,368,247	43,393,200
1943.....	668	110,684,657	25,388	38,723,390	81,085,860	60,156,877	142,587,011
1944.....	665	3	25,542	41,304,732	66,967,507	84,159,068	152,484,000
1945.....	692	3	24,956	38,642,220	90,185,370	62,527,170	154,115,871
1946.....	704	3	21,381	31,641,518	50,387,530	61,245,149	112,942,600
1947.....	802	3	23,574	38,542,267	48,778,643	70,328,616	120,601,422

<sup>1</sup> See footnote 1, Table 1;<sup>2</sup> See footnote 2, Table 1.<sup>3</sup> Not collected



The figures in Table 4 trace the tendencies in Canadian manufacturing industries as clearly as possible through the latest period of their development. In analysing statistics of production and materials used, it should be borne in mind that, due to the inflation of values from 1914 through the immediate post-war period and the drop in prices of commodities during the depressions following 1921 and 1930, the figures for these periods are not completely comparable. One very important figure, however, which shows the trend of development clearly, is concerned with the use of power. The total horse-power employed increased from 1,658,475 in 1917 to 7,381,427 in 1947, an increase of about 345 p.c. in 30 years. In the same period, horse-power per wage-earner showed an interrupted trend from 3 to 11 in 1933 and between 9 and 10 in 1939. With the large increase in the number of wage-earners on war production, and the more efficient utilization of the equipment available, the horse-power per wage-earner dropped to 6 in 1944. With the increasing installation of power machinery and the decline in employment after the War, the number of horse-power per wage-earner rose to 8 in 1947. The significant feature is the increase in both the absolute figure of power employed and the averages per wage-earner during the depression years as compared with 1929, although the large numbers of persons again finding employment since 1933 reduced the averages for the years 1934 to 1937 and again for 1940 to 1945. Other interesting comparisons are the trend of value added by manufacture, per employee, and of average salaries and wages paid since 1929.



4.—Summary Statistics of Manufactures, Significant Years, 1917-47

Item	1917	1920	1929 <sup>1</sup>	1933	1939	1944	1946	1947
Establishments.....	21,845	22,532	22,216	23,780	24,805	28,483	31,249	32,734
Capital.....	2,333,981,229	2,923,607,011	4,004,862,009	3,279,259,838	3,647,024,440	2,147,028	2	2
Averages, per establishment.....	106,843	129,766	180,271	137,900	147,028	...	...	...
Averages, per employee.....	3,848	4,882	6,009	6,907	6,542	...	...	...
Averages, per wage-earner.....	4,309	5,616	6,933	6,838	6,584	...	...	...
Totals, employees.....	606,523	598,893	666,531	468,668	688,114	1,222,882	1,058,156	1,131,750
Averages, per establishment.....	27.8	30.0	26.6	19.7	20.5	1,202,429.0	1,058,156	1,131,750
Totals, salaries and wages.....	497,801,844	717,493,876	777,291,217	436,247,824	737,811,153	2,029,621,370	1,740,687,254	2,085,995,968
Averages, per establishment.....	22,788	31,843	34,988	18,345	29,744	71,257	55,704	63,723
Averages, per employee.....	821	1,106	931	931	1,121	1,060	1,045	1,843
Averages, per wage-earner.....	64,918	78,334	88,841	86,636	124,772	192,538	181,006	191,100
Employees on salaries.....	85,353,667	141,837,361	175,553,710	139,317,946	217,839,334	418,005,594	410,875,770	474,693,800
Salaries.....	1,315	1,811	1,976	1,608	1,746	2,171	2,276	2,484
Averages, per salaried employee.....	541,605	520,559	577,690	382,022	533,342	1,030,324	877,150	940,650
Employees on wages.....	24.8	23.1	26.0	16.1	21.5	36.2	28.1	28.7
Averages, per establishment.....	412,448,177	575,656,515	601,737,507	296,929,878	519,971,819	1,611,555,776	1,329,811,478	1,611,232,166
Wages.....	762	1,106	1,042	777	975	1,564	1,516	1,713
Averages, per wage-earner.....	1,539,678,811	2,085,276,649	2,029,670,813	967,788,928	1,836,159,375	4,832,333,356	4,358,234,766	5,534,280,019
Cost of materials.....	70,482	92,547	91,361	40,698	74,024	189,657	139,468	169,068
Averages, per establishment.....	2,539	3,482	3,045	2,065	2,790	3,952	4,119	4,890
Averages, per employee.....	1,281,131,980	1,621,273,348	1,755,386,937	919,671,181	1,531,051,901	4,015,776,010	3,467,004,980	4,292,055,802
Values added in manufactures <sup>3</sup> .....	58,646	71,904	79,015	38,674	61,724	140,989	110,948	131,119
Averages, per establishment <sup>3</sup> .....	2,112	2,707	2,634	1,962	2,326	3,276	3,792	3,792
Averages, per employee <sup>3</sup> .....	2,820,810,791	3,706,544,997	3,883,446,116	1,954,075,785	3,474,783,528	9,073,692,519	8,035,692,471	10,081,026,580
Gross value of products.....	129,198	164,501	174,804	82,173	140,084	318,565	257,150	307,968
Averages, per establishment.....	4,651	6,189	5,286	4,170	5,280	7,420	7,594	8,907
Averages, per employee.....	1,658,475	2,068,875	3,855,648	4,135,008	5,045,287	6,468,439	6,783,949	7,381,427
Power equipment.....	76	92	174	174	203	227	217	225
Averages, per establishment.....	3.06	3.97	6.67	10.82	9.46	6.28	7.73	7.85
Averages, per wage-earner.....								

<sup>1</sup> A change in the method of computing the number of wage-earners in the years 1925 to 1930, inclusive, increased the number somewhat over that which the method otherwise used would have given. There was, therefore, a proportionate reduction in the averages for 1925-30 per employee and wage-earner, as compared with what these averages would have been under the other method. In 1931, however, the method in force prior to 1925 was re-adopted. The figures for 1931 and later years are, therefore, comparable with those for 1924 and earlier years.

<sup>2</sup> Not collected.

<sup>3</sup> Net values of products; see footnote 1, Table 1.



**Consumption of Manufactured Products.**—Table 5 shows the value of commodities made available for consumption in Canada. The consumption figure is obtained by adding to the value of manufactured products the value of the imports of manufactured and partly manufactured goods and deducting the value of the exports. More accurate statistics could be presented were it possible to exclude from the gross value of manufactured products the duplications involved when the products of one manufacturing establishment become the material worked upon in another. Iron, vegetable, textile, wood and paper, and animal were, in that order, the leading groups in the value of finished products made available for consumption in 1946. Vegetable, animal, wood and paper, and non-ferrous metal products were manufactured in Canada in greater quantities than required for home consumption; export balances were provided in these groups.

**5.—Value of Consumption of Manufactured Products, 1935-46, and by Industrial Groups, 1946**

Year or Industrial Group	Value of Products Manufactured	Manufactured and Partly Manufactured Goods <sup>1</sup>		Value of Manufactured Products Available for Consumption
		Value of Net Imports	Value of Domestic Exports	
	\$	\$	\$	\$
1935.....	2,653,911,209	385,597,041	582,041,141	2,457,467,109
1936.....	3,002,403,814	468,455,981	676,890,803	2,793,968,992
1937.....	3,625,459,500	566,876,483	781,099,407	3,411,236,576
1938.....	3,337,681,366	472,193,253	587,758,795	3,222,115,824
1939.....	3,474,783,528	542,364,930	646,853,938	3,370,294,520
1940.....	4,529,173,316	807,636,948	913,049,979	4,423,760,285
1941.....	6,076,308,124	1,123,994,913	1,292,855,603	5,907,447,434
1942.....	7,553,794,972	1,283,884,068	2,056,368,079	6,781,310,961
1943.....	8,732,860,999	1,305,838,746	2,444,862,298	7,593,837,447
1944.....	9,073,692,519	1,302,413,996	2,668,575,781	7,707,530,734
1945.....	8,250,368,866	1,117,544,874	2,352,441,796	7,015,471,944
<b>Industrial Group, 1946</b>				
Vegetable products.....	1,469,914,130	143,536,230	215,611,006	1,397,839,354
Animal products.....	1,132,233,759	29,960,033	208,051,118	954,142,674
Textiles and textile products.....	888,658,943	190,897,925	52,076,376	1,027,480,495
Wood and paper products.....	1,484,436,122	67,812,589	580,131,378	972,117,333
Iron and its products.....	1,405,542,865	480,238,958	223,119,955	1,662,661,868
Non-ferrous metal products.....	719,191,106	104,265,224	227,819,704	595,636,626
Non-metallic mineral products.....	446,484,682	106,480,539	38,677,012	514,288,209
Chemicals and allied products.....	376,288,264	91,896,455	67,588,719	400,596,000
Miscellaneous industries.....	112,942,600	175,035,144	88,601,758	199,375,986
<b>Totals, 1946.....</b>	<b>8,035,692,471</b>	<b>1,390,123,100</b>	<b>1,701,677,026</b>	<b>7,724,138,545</b>

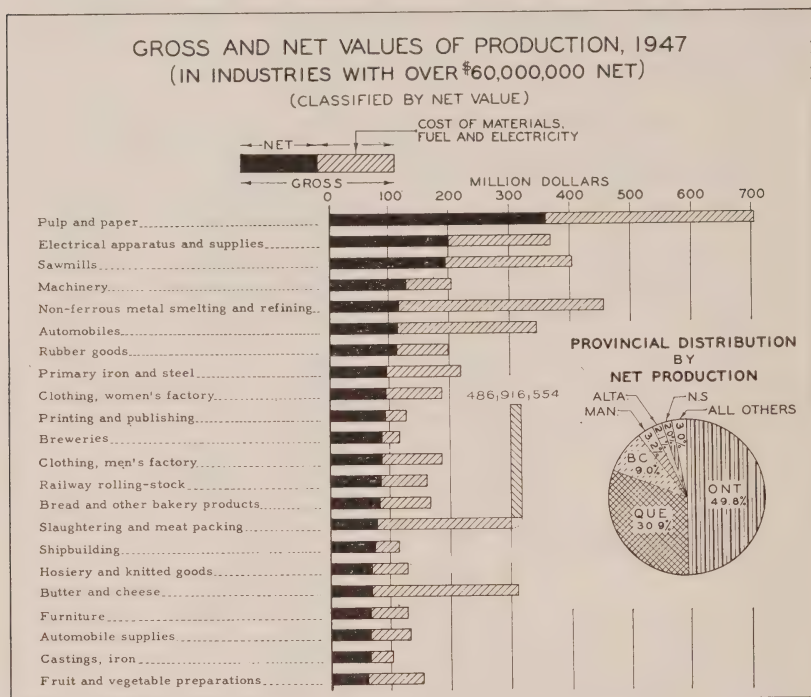
<sup>1</sup> Imports and exports of manufactured and partly manufactured goods for the years 1935-38 are as at Mar. 31 of the following years; for 1939-46 they are for calendar years. Net imports are total imports less foreign products re-exported.

**Section 2.—Value and Volume of Manufactured Products**

**Value of Manufactured Products.**—In the interpretation of manufacturing values over a number of years, variations in the level of prices must be borne in mind, especially when such variations have been as great as those in the period since the annual Census of Manufactures was begun in 1917. The index number of wholesale prices in Canada, on the 1926 base, compiled by the Dominion Bureau of Statistics, stood at 114·3 in 1917, 155·9 in 1920, 97·3 in 1922, 95·6 in 1929, 67·1 in 1933, 84·6 in 1937, 75·4 in 1939 and 108·7 p.c. in 1946. Index numbers of the

prices of fully or chiefly manufactured goods were: 113.5 in 1917, 156.5 in 1920, 100.4 in 1922, 93.0 in 1929, 70.2 in 1933, 80.5 in 1937, 75.3 in 1939 and 98.8 p.c. in 1946.

**Volume of Manufacturing Production.**—Since real income is ultimately measured in goods and services, the growth of the volume of manufacturing production, as distinguished from its value, becomes a matter of great significance. The important thing to know is whether consumers are getting more goods and services, not whether they are expending more dollars and cents.



The index of volume (Table 6) is based on the quantities of manufactured products reported. The industry indexes are weighted according to the values added by manufacture. The weights and products were changed in 1931, 1936 and then again in 1941. By changing the weights and products used in the construction of the index every five years, current changes in production are reflected more accurately.

The physical volume of manufacturing production increased 50 p.c. from 1923 to 1929. When it is recalled that the population of Canada is estimated to have increased only 11 p.c. during the same period, the growth of manufacturing production is indeed remarkable. Of this advance, the part resulting from an increase in the domestic demand due to growth of population was therefore about 11 p.c. and the increase in exports represented about 4 p.c. The remainder, a margin equal to roughly 35 p.c. of the volume of manufactures of 1923, was, therefore, apparently absorbed by increases in capital equipment and by the rise in the standard of living of the population of Canada.

A similar analysis of the volume of manufactures since 1929 shows that the decline in the depression preceding the Second World War was due chiefly to reduced exports and a cessation in production of capital equipment. As a result of the expansion in production resulting from war demands, the physical volume of production in 1943, when output was at an all-time high, increased by 77 p.c. over 1939 and by 85 p.c. over 1929. In 1946 the index of the physical volume of production at 150.3 represented a drop of almost 20 p.c. from the high mark attained in 1943.

#### 6.—Indexes of the Volume of Manufacturing Production, according to Component Material Groups, 1935-46

(1935-39=100)

NOTE.—The indexes for 1940 to 1946 are being revised from supplementary information now available.

Year	Vegetable Products	Animal Products	Textiles and Textile Products	Wood and Paper Products	Iron and its Products	Non-Ferrous Metal Products	Non-Metallic Mineral Products	Chemicals and Allied Products	Miscellaneous Industries	All Industries
1935...	87.0	91.3	94.5	89.5	83.4	81.2	88.1	87.2	91.1	87.9
1936...	95.9	98.7	99.9	98.4	93.5	91.5	96.8	93.6	91.7	96.2
1937...	104.5	102.7	106.0	109.6	118.1	110.1	111.3	107.3	106.6	108.9
1938...	102.4	100.3	94.5	97.8	102.8	106.0	101.6	102.9	105.3	100.8
1939...	109.0	107.2	104.9	104.4	101.9	111.1	105.1	108.9	110.7	106.3
1940...	117.9	118.7	124.8	117.8	141.2	133.2	127.8	130.2	116.3	125.2
1941...	137.2	138.2	143.1	131.3	217.1	165.4	148.8	219.6	157.4	155.9
1942...	136.4	145.0	152.4	131.2	289.2	213.7	157.6	369.6	180.2	179.9
1943...	135.8	150.5	140.2	126.7	328.3	255.4	163.5	394.8	186.0	187.7
1944...	155.0	155.9	136.2	129.1	300.5	229.6	166.5	338.8	192.0	180.8
1945...	159.0	159.9	134.7	136.2	247.7	177.6	165.6	257.2	195.6	165.3
1946...	166.6	157.0	134.1	155.5	181.7	155.6	176.2	137.3	168.7	150.3

#### 7.—Indexes of the Volume of Manufacturing Production, according to Purpose Classification Groups, 1935-46

(1935-39=100)

NOTE.—The indexes for 1940 to 1946 are being revised from supplementary information now available.

Year	Food	Clothing	Drink and Tobacco	Personal Utilities	House Furnishings	Books and Stationery	Producer Materials	Industrial Equipment	Vehicles and Vessels	Miscellaneous	All Industries
1935.....	90.5	92.2	82.5	87.6	85.9	93.4	86.2	84.7	90.5	78.6	87.9
1936.....	98.8	97.9	90.9	94.3	95.4	96.3	97.0	94.9	94.3	87.2	96.2
1937.....	101.5	103.9	107.6	106.7	110.5	101.7	111.8	113.3	118.0	109.6	108.9
1938.....	102.4	97.9	107.5	103.0	101.6	103.8	98.0	102.0	99.9	109.1	100.8
1939.....	107.0	108.2	111.6	108.5	106.5	104.7	106.9	105.1	97.4	115.5	106.3
1940.....	115.0	119.9	129.7	115.1	120.5	102.8	128.7	138.7	129.5	180.3	125.2
1941.....	131.7	136.0	149.5	140.0	140.4	112.8	151.1	184.9	230.8	230.8	155.9
1942.....	130.6	142.7	171.2	144.6	149.4	106.6	172.3	222.8	310.2	430.9	179.9
1943.....	135.7	134.9	167.9	141.7	149.7	107.2	172.7	257.0	373.0	405.1	187.7
1944.....	147.5	135.7	193.0	143.9	153.6	110.7	164.4	237.6	369.5	362.4	180.8
1945.....	149.0	136.7	203.5	158.9	156.1	120.4	152.8	208.6	289.4	257.8	165.3
1946.....	151.9	141.6	212.0	177.7	173.3	137.5	146.6	191.0	178.6	105.9	150.3



### 8.—Indexes of the Volume of Manufacturing Production according to Purpose Classification, Significant Years, 1923-46

(1935-39=100)

Industrial Group	1923	1929	1933	1939	1943	1945	1946
<b>Food</b> .....	<b>73.7</b>	<b>89.4</b>	<b>79.9</b>	<b>107.0</b>	<b>135.7</b>	<b>149.0</b>	<b>151.9</b>
Breadstuffs.....	81.0	98.7	84.3	106.9	138.7	144.5	151.3
Fish.....	108.5	114.1	86.7	98.8	131.9	161.5	156.8
Fruit and vegetable preparations.....	32.9	70.8	64.5	109.9	107.0	133.7	175.4
Meats.....	72.7	78.5	76.2	106.0	165.3	176.4	159.2
Milk products.....	69.8	77.2	78.7	107.3	145.5	148.7	141.2
Oils and fats.....	52.0	40.9	41.9	156.4	314.0	336.6	356.7
Sugar.....	79.2	88.5	82.5	109.4	83.3	95.0	92.8
Infusions.....	64.4	75.0	82.5	105.8	156.2	195.5	196.0
Miscellaneous.....	46.5	67.4	66.5	110.4			
<b>Clothing</b> .....	<b>69.2</b>	<b>95.8</b>	<b>81.7</b>	<b>108.2</b>	<b>134.9</b>	<b>136.7</b>	<b>141.6</b>
Boots and shoes.....	73.0	100.6	80.0	113.4	107.9	129.9	140.5
Fur goods.....	41.1	97.6	81.0	118.3	169.7	195.0	206.9
Garments and personal furnishings.....	75.3	94.2	80.2	103.1	153.9	144.4	145.6
Gloves and mittens.....	59.2	84.0	76.4	100.4	167.1	172.5	170.7
Hats and caps.....	58.6	95.3	74.3	104.5	130.9	123.9	133.8
Knitted goods.....	64.8	86.1	83.1	112.4	118.2	120.4	125.8
Waterproofs.....	48.9	89.8	65.7	100.4	250.0	160.9	159.3
<b>Drink and Tobacco</b> .....	<b>50.1</b>	<b>92.6</b>	<b>63.4</b>	<b>111.6</b>	<b>167.9</b>	<b>203.5</b>	<b>212.0</b>
Beverages, alcoholic.....	49.5	105.9	60.5	102.8	165.8	229.5	258.2
Beverages, non-alcoholic.....	35.9	61.3	54.9	136.4	178.6	171.8	187.8
Tobacco.....	55.3	90.7	77.1	111.3	170.6	210.1	189.2
<b>Personal Utilities</b> .....	<b>85.1</b>	<b>101.5</b>	<b>70.7</b>	<b>108.5</b>	<b>141.7</b>	<b>158.9</b>	<b>177.7</b>
Jewellery and time-pieces.....	78.4	88.5	67.7	108.1	140.0	167.6	207.2
Recreational supplies.....	193.3	176.7	48.2	114.1	152.4	189.2	218.6
Personal utilities.....	56.1	79.8	78.1	107.5	142.6	152.5	160.6
<b>House Furnishings</b> .....	<b>62.1</b>	<b>108.3</b>	<b>68.7</b>	<b>106.5</b>	<b>149.7</b>	<b>156.1</b>	<b>173.3</b>
<b>Books and Stationery</b> .....	<b>56.1</b>	<b>79.3</b>	<b>73.5</b>	<b>104.7</b>	<b>107.2</b>	<b>120.4</b>	<b>137.5</b>
<b>Producers Materials</b> .....	<b>69.3</b>	<b>101.8</b>	<b>63.6</b>	<b>106.9</b>	<b>172.7</b>	<b>152.8</b>	<b>146.6</b>
Farm materials (fertilizers).....	8.0	13.4	51.7	124.8	204.5	236.3	303.2
Manufacturers materials.....	58.7	88.1	64.4	105.6	169.1	146.8	141.1
Building materials.....	109.3	152.9	58.8	111.2	154.8	162.7	188.4
General materials.....	86.0	120.3	69.3	108.5	190.0	202.8	206.9
<b>Industrial Equipment</b> .....	<b>64.3</b>	<b>109.2</b>	<b>59.2</b>	<b>105.1</b>	<b>257.0</b>	<b>208.6</b>	<b>191.0</b>
Farming equipment.....	97.7	144.7	43.3	85.1	240.7	211.0	204.8
Manufacturing equipment.....	66.5	101.3	44.9	107.6	293.5	244.1	243.7
Trading equipment.....	55.2	77.2	80.0	107.7	317.8	220.9	152.0
Service equipment.....	67.7	75.8	72.5	100.4			
Light, heat and power equipment.....	46.6	104.8	61.7	105.0	220.7	199.7	193.9
General equipment.....	74.2	114.4	55.5	106.4	292.8	217.3	191.2
<b>Vehicles and Vessels</b> .....	<b>77.4</b>	<b>142.6</b>	<b>57.7</b>	<b>97.4</b>	<b>373.0</b>	<b>289.4</b>	<b>178.6</b>
<b>Miscellaneous</b> .....	<b>45.0</b>	<b>66.2</b>	<b>59.9</b>	<b>115.5</b>	<b>405.1</b>	<b>257.8</b>	<b>105.9</b>
<b>Totals, All Manufactures</b> .....	<b>67.5</b>	<b>101.4</b>	<b>67.7</b>	<b>106.3</b>	<b>187.7</b>	<b>165.3</b>	<b>150.3</b>

<sup>1</sup> Classification discontinued.

## Section 3.—Production by Industrial Groups and Individual Industries

### Subsection 1.—Manufactures Grouped by Chief Component Materials

A classification based on the chief component materials in the various products of each manufacturing establishment was applied for the first time in the compilation of the returns for 1920. The number of groups was reduced from 15 to 9 to correspond with the external trade classification and the classes of industry were somewhat altered to conform with industrial developments. Subsequently, a number of minor changes were made and revisions due to such changes have been carried back to 1917 as far as possible.

**Changes in Manufacturing Production.**—Table 9 shows the effects of the depression, the recovery since 1933, and the impact of the Second World War and changes since the end of the War upon the main groups of industries with regard to



the numbers employed, the salaries and wages paid, and the gross value of products. Owing to the price decline during the depression, money values of both wages and products were naturally affected more than number of employees. Furthermore, during periods of curtailed production there is a tendency for wage-earners to be put on part time, while the number of salaried employees responds less quickly to reduction in output than that of wage-earners. Therefore, there are several reasons why the variation in number of employees should be less than that of money values. The figures of Table 9 are to be compared with those of Table 6 which shows changes in volume of production. Compared with 1939, the number of employees in 1944 increased by 86 p.c. as compared with an increase of 70 p.c. in the physical volume or production. Salaries and wages paid were 175 p.c. higher and the gross value of production 161 p.c. higher.

Significant changes in the nature of manufacturing production took place after the cessation of hostilities in 1945. Industries engaged in war production curtailed their operations, but industries producing consumer goods increased their production.

### 9.—Percentage Variation in Employment, Salaries and Wages, and Gross Value of Products in the Main Industrial Groups, Compared for Significant Years, 1929-46

NOTE.—The highest pre-depression year was 1929, while the lowest depression year was 1933.

Industrial Group	1933 Compared with 1929			1939 Compared with 1929			1944 Compared with 1939		
	Em- ployees	Salaries and Wages	Gross Value of Pro- ducts	Em- ployees	Salaries and Wages	Gross Value of Pro- ducts	Em- ployees	Salaries and Wages	Gross Value of Pro- ducts
Vegetable products.....	-17.2	-28.5	-44.8	+ 9.2	+ 8.8	-15.8	+ 31.4	+ 76.4	+ 92.6
Animal products.....	-21.5	-25.2	-43.3	+ 2.5	+ 9.9	- 3.3	+ 35.8	+ 89.4	+136.4
Textile products.....	- 7.9	-23.3	-30.7	+16.5	+12.8	- 2.6	+ 26.5	+ 82.8	+ 99.1
Wood and paper products.....	-36.1	-46.8	-52.9	-12.0	-14.0	-20.0	+ 31.0	+ 72.1	+ 88.6
Iron and its products.....	-48.6	-64.5	-72.6	-15.2	-22.2	-30.0	+240.3	+416.2	+359.1
Non-ferrous metals.....	-36.6	-48.4	-41.9	+11.8	+ 9.5	+46.7	+134.1	+206.5	+138.5
Non-metallic minerals.....	-42.0	-50.5	-42.8	-21.3	-22.8	- 9.4	+ 37.2	+ 86.7	+100.0
Chemicals.....	- 7.8	-17.2	-33.0	+35.3	+39.4	+15.2	+262.1	+335.3	+359.8
Miscellaneous products....	-22.6	-37.3	-52.9	+13.9	+ 4.7	-15.3	+108.0	+216.6	+251.4
<b>Averages, All Industries.</b>	<b>-29.7</b>	<b>-43.9</b>	<b>-49.7</b>	<b>- 1.3</b>	<b>- 5.1</b>	<b>-10.5</b>	<b>+ 85.8</b>	<b>+175.1</b>	<b>+161.1</b>

Industrial Group	1946 Compared with 1944			1946 Compared with 1945		
	Employees	Salaries and Wages	Gross Value of Products	Employees	Salaries and Wages	Gross Value of Products
Vegetable products.....	+ 5.0	+12.5	+15.7	+ 1.4	+ 5.6	+ 8.6
Animal products.....	+ 9.1	+17.3	+ 3.7	+ 4.6	+ 9.5	+ 1.8
Textiles and textile products.....	+ 7.6	+16.5	+13.7	+ 4.2	+ 9.8	+10.0
Wood and paper products.....	+18.2	+28.7	+35.7	+12.4	+19.6	+25.3
Iron and its products.....	-39.5	-41.9	-44.7	-22.5	-25.3	-28.8
Non-ferrous metal products.....	-18.7	-17.8	-27.5	- 4.0	- 5.0	- 7.7
Non-metallic mineral products....	+15.5	+13.8	+ 7.3	+12.2	+11.6	+10.0
Chemicals and allied products.....	-54.4	-51.6	-48.7	-38.6	-37.2	-21.4
Miscellaneous industries.....	-16.3	-23.4	-25.9	-14.3	-18.1	-26.7
<b>Averages, All Industries.....</b>	<b>-13.5</b>	<b>-14.2</b>	<b>-11.4</b>	<b>- 5.5</b>	<b>- 5.7</b>	<b>- 2.6</b>

### Subsection 2.—Manufactures Classified on the Standard Classification Basis

During the War many government departments and agencies collected and compiled the statistics they needed. Inevitably each one adopted a system of classification best suited to its needs. The result was that many statistical series were compiled but, due to differences in classification, none of these series could be correlated or utilized for any purpose other than that originally intended.

In order to provide information of maximum usefulness and to allow for a direct comparison of the different series, an interdepartmental committee was set up to review the different systems of classification in use and to recommend a standard classification which might in future be used by all government departments in their statistical compilations.

Tables 10 and 11 give statistics of the manufacturing industries for 1945 and 1946 on the basis of the standard classification recommended by this committee.

#### 10.—Principal Statistics of Manufacturing Industries, Classified on the Standard Classification Basis, 1945 and 1946

Year and Industrial Group	Estab-lish-ments	Em-ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>1945</b>						
Food and beverages.....	8,872	156,396	224,908,882	1,336,820,028	558,247,045	1,921,774,601
Tobacco and tobacco products	86	12,164	15,738,041	79,176,519	42,985,992	122,543,932
Rubber products.....	55	23,490	39,111,477	78,500,892	98,836,225	181,413,226
Leather products.....	706	34,123	43,268,635	95,006,015	71,297,713	167,888,463
Textile products (except clothing).....	655	65,388	87,454,497	213,589,559	163,973,427	385,741,605
Clothing (textile and fur)....	2,676	99,959	131,478,496	251,899,847	222,307,384	476,754,319
Wood products.....	7,656	93,209	119,833,932	240,482,275	208,979,657	454,447,165
Paper products.....	475	60,819	109,627,174	255,265,326	241,121,150	536,859,861
Printing, publishing and allied trades.....	2,312	43,565	74,257,775	52,655,848	132,385,988	186,945,134
Iron and steel products.....	1,903	169,278	313,966,173	395,624,098	527,473,688	952,482,150
Transportation equipment....	504	154,844	326,748,794	498,241,686	523,910,119	1,034,666,913
Non-ferrous metal products..	436	44,221	81,889,942	337,872,041	180,653,076	548,853,026
Electrical apparatus and supplies.....	247	44,129	76,468,795	92,041,030	135,919,899	230,531,874
Non-metallic mineral products.....	700	20,269	32,959,877	41,488,955	76,318,456	130,704,796
Petroleum and coal products.	80	11,532	22,904,418	188,899,911	65,637,131	270,166,984
Chemical products.....	986	61,339	107,050,824	228,855,956	252,944,165	498,630,798
Miscellaneous.....	701	24,647	38,105,717	87,248,861	61,324,784	149,964,019
<b>Totals, 1945.....</b>	<b>29,050</b>	<b>1,119,372</b>	<b>1,845,773,449</b>	<b>4,473,668,847</b>	<b>3,564,315,899</b>	<b>8,250,368,866</b>
<b>1946</b>						
Food and beverages.....	8,862	160,821	241,769,865	1,408,818,069	604,120,647	2,040,708,650
Tobacco and tobacco products	95	10,849	14,410,558	79,255,405	39,981,625	119,634,216
Rubber products.....	60	22,055	37,813,363	62,135,578	93,451,248	159,408,113
Leather products.....	776	37,290	49,712,628	108,702,945	82,319,495	192,749,456
Textile products (except clothing).....	711	66,784	94,741,779	214,516,314	177,323,833	400,075,422
Clothing (textile and fur)....	2,988	105,868	146,265,152	285,588,957	263,018,398	551,331,576
Wood products.....	8,846	105,472	142,338,538	297,923,979	256,436,946	560,341,251
Paper products.....	486	67,442	134,820,546	313,410,656	333,819,710	695,085,534
Printing, publishing and allied trades.....	2,404	48,950	86,433,880	65,501,698	154,951,731	222,548,636
Iron and steel products.....	2,086	151,373	279,567,770	337,981,814	461,501,765	824,766,017
Transportation equipment....	539	100,745	200,097,765	301,206,839	279,333,127	590,128,311
Non-ferrous metal products..	474	40,855	75,855,699	311,082,975	148,492,336	484,618,453
Electrical apparatus and supplies.....	266	43,998	74,510,479	101,939,272	129,968,926	234,572,653
Non-metallic mineral products.....	833	24,387	39,651,286	49,957,966	94,591,439	160,476,827
Petroleum and coal products.	77	12,106	24,197,354	190,527,903	79,046,757	286,007,855
Chemical products.....	1,031	38,012	67,842,339	179,749,719	208,399,498	401,741,703
Miscellaneous.....	715	21,149	31,158,253	49,954,677	60,247,499	111,497,798
<b>Totals, 1946.....</b>	<b>31,249</b>	<b>1,058,156</b>	<b>1,740,687,254</b>	<b>4,358,234,766</b>	<b>3,467,004,980</b>	<b>8,035,692,471</b>

### 11.—Principal Statistics of Individual Manufacturing Industries, Classified on the Standard Classification Basis, 1946

Industrial Group	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>Food and Beverages.....</b>	<b>8,862</b>	<b>160,821</b>	<b>241,769,865</b>	<b>1,408,818,069</b>	<b>604,120,647</b>	<b>2,040,708,650</b>
<b>Meat Products.....</b>	<b>229</b>	<b>23,283</b>	<b>41,390,200</b>	<b>412,917,033</b>	<b>67,164,333</b>	<b>483,289,113</b>
Animal oils and fats.....	8	148	282,372	639,978	467,612	1,179,080
Sausage and sausage casings	74	599	794,803	4,243,599	1,827,882	6,156,879
Slaughtering and meat- packing.....	147	22,536	40,313,025	408,033,456	64,868,839	475,953,154
<b>Dairy Products.....</b>	<b>2,300</b>	<b>22,679</b>	<b>33,213,903</b>	<b>178,284,499</b>	<b>68,101,014</b>	<b>291,799,884</b>
Butter and cheese.....	2,161	19,659	28,668,241	277,638,517	52,761,041	284,664,461
Cheese, processed.....	23	882	1,282,349	11,666,968	4,435,512	16,167,878
Condensed milk.....	31	1,466	2,287,444	26,082,614	8,620,642	35,641,045
Other dairy products.....	85	672	975,869	2,896,400	2,283,819	5,326,500
<b>Fruit, Vegetable and Fish Processing.....</b>	<b>1,099</b>	<b>27,700</b>	<b>32,968,587</b>	<b>151,446,974</b>	<b>81,765,125</b>	<b>236,205,429</b>
Fish-curing and -packing...	586	11,327	13,799,809	68,012,828	31,084,775	100,201,291
Fruit and vegetable prepar- ations.....	513	16,373	19,168,778	83,434,146	50,680,350	136,004,138
<b>Grain Mill Products.....</b>	<b>1,232</b>	<b>13,163</b>	<b>21,368,796</b>	<b>300,418,451</b>	<b>55,585,383</b>	<b>359,208,850</b>
Flour and feed mills.....	974	8,036	12,898,160	224,233,698	34,191,283	260,659,451
Food, breakfast.....	23	1,156	2,062,310	7,535,527	7,186,162	14,965,222
Feeds, stock and poultry...	235	3,971	6,408,326	68,649,226	14,207,938	83,594,177
<b>Bakery Products.....</b>	<b>2,901</b>	<b>35,514</b>	<b>49,196,458</b>	<b>86,047,664</b>	<b>91,295,361</b>	<b>182,278,989</b>
Biscuits and crackers.....	37	5,061	6,209,257	15,161,125	18,314,617	33,916,461
Bread and other bakery products.....	2,864	30,453	42,987,201	70,886,539	72,980,744	148,362,528
<b>Beverages.....</b>	<b>564</b>	<b>18,586</b>	<b>34,441,663</b>	<b>64,942,116</b>	<b>161,427,823</b>	<b>230,280,015</b>
Aerated and mineral waters	456	5,040	8,150,758	14,872,546	27,332,922	43,048,680
Breweries.....	61	8,644	17,743,749	23,416,499	84,270,490	109,299,587
Distilleries.....	18	4,075	7,122,533	21,437,733	44,326,434	67,119,358
Wineries.....	29	827	1,424,623	5,215,338	5,497,977	10,812,390
<b>Miscellaneous Foods.....</b>	<b>537</b>	<b>19,896</b>	<b>29,190,258</b>	<b>174,761,332</b>	<b>78,781,608</b>	<b>257,646,370</b>
Confectionery, cocoa, etc...	200	7,982	10,442,233	28,821,548	23,266,628	52,797,998
Sugar refineries.....	11	2,633	5,010,789	45,900,913	13,748,222	61,181,621
Malt mills.....	11	563	1,145,947	9,500,127	5,534,724	15,665,698
Macaroni, vermicelli, etc...	17	726	1,018,802	2,888,739	2,252,412	5,246,935
Starch and glucose.....	10	1,027	1,649,708	6,943,428	3,015,462	10,478,106
Miscellaneous food indus- tries.....	286	6,893	9,758,181	78,782,164	30,670,894	110,051,938
Salt (See Non-metallic minerals).						
All other industries.....	2	72	164,598	1,924,413	293,266	2,224,074
<b>Tobacco and Tobacco Prod- ucts.....</b>	<b>95</b>	<b>10,849</b>	<b>14,410,558</b>	<b>79,255,405</b>	<b>39,981,625</b>	<b>119,634,216</b>
Tobacco, cigars and cigarettes	78	9,532	12,711,360	45,455,773	36,048,133	81,799,967
Tobacco processing.....	17	1,317	1,699,198	33,799,632	3,933,492	37,834,249
<b>Rubber Products.....</b>	<b>60</b>	<b>22,055</b>	<b>37,813,363</b>	<b>62,135,578</b>	<b>93,451,248</b>	<b>159,408,113</b>
<b>Leather Products.....</b>	<b>776</b>	<b>37,290</b>	<b>49,712,628</b>	<b>108,702,945</b>	<b>82,319,495</b>	<b>192,749,456</b>
Boots and shoes, leather...	294	22,334	29,023,596	52,340,814	43,612,607	96,435,251
Boots and shoe findings, leather.....	25	718	1,063,766	1,520,992	1,733,628	3,380,936
Gloves and mittens, leather...	84	3,067	3,186,335	5,711,362	5,012,729	10,767,299
Belting, leather.....	15	254	405,931	1,173,094	730,580	1,919,439
Leather tanneries.....	78	5,400	9,224,329	35,658,320	20,401,700	56,998,751
Miscellaneous leather goods...	280	5,517	6,808,671	12,298,363	10,828,251	23,247,780
<b>Textile Products (except clothing).....</b>	<b>711</b>	<b>66,784</b>	<b>91,741,779</b>	<b>214,516,314</b>	<b>177,323,833</b>	<b>400,075,422</b>
<b>Cotton Goods.....</b>	<b>198</b>	<b>24,908</b>	<b>34,653,406</b>	<b>82,283,184</b>	<b>55,430,145</b>	<b>140,822,004</b>
Cotton thread.....	7	927	1,144,283	3,460,966	2,405,268	5,942,577
Cotton yarn and cloth.....	41	20,662	29,090,343	62,495,630	44,473,067	109,828,450
Cotton batting and wadding	6	348	616,475	2,210,547	1,280,979	3,547,875
Cotton and wool waste.....	28	443	716,935	4,524,851	1,410,669	5,997,344
Cotton goods, n.e.s.....	116	2,528	3,085,370	9,591,190	5,860,162	15,505,758
<b>Woollen Goods.....</b>	<b>208</b>	<b>17,620</b>	<b>24,418,748</b>	<b>60,239,328</b>	<b>45,462,250</b>	<b>107,539,253</b>
Woollen cloth.....	100	9,913	13,666,884	30,877,136	24,959,837	56,878,560
Woollen yarn.....	53	4,238	5,093,009	15,330,348	9,316,484	25,019,305
Woollen goods, n.e.s.....	35	2,219	3,610,476	11,091,344	7,789,625	19,180,926
Carpets, mats and rugs.....	20	1,250	2,048,379	2,940,500	3,396,304	6,460,462



# 11.—Principal Statistics of Individual Manufacturing Industries, Classified on the Standard Classification Basis, 1946—continued

Industrial Group	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>Textile Products—concluded</b>						
<b>Silk and Artificial Silk.....</b>	<b>36</b>	<b>13,100</b>	<b>18,890,121</b>	<b>24,099,473</b>	<b>39,550,662</b>	<b>65,521,067</b>
Silk and artificial silk goods.....	36	13,100	18,890,121	24,099,473	39,550,662	65,521,067
<b>Other Primary Textiles.....</b>	<b>80</b>	<b>4,252</b>	<b>6,160,329</b>	<b>5,867,162</b>	<b>11,785,197</b>	<b>18,394,258</b>
Dyeing and finishing of textiles.....	41	2,188	3,409,389	1,790,674	6,785,972	9,207,244
Narrow fabrics.....	39	2,064	2,750,940	4,076,488	4,999,225	9,187,014
<b>Miscellaneous Textile Prod- ucts.....</b>	<b>189</b>	<b>6,904</b>	<b>10,619,175</b>	<b>42,027,167</b>	<b>25,095,579</b>	<b>67,798,840</b>
Awnings, tents and sails....	90	1,364	1,868,902	3,804,588	3,236,348	7,090,385
Cordage, rope and twine....	10	1,740	2,669,236	8,058,127	5,641,043	13,869,880
Cotton and jute bags.....	31	1,413	1,942,873	22,026,290	6,043,937	28,141,484
Flax fibre.....	36	477	564,212	—	1,677,076	1,734,706
Linen goods.....	6	164	202,258	644,632	380,740	1,033,868
Miscellaneous textiles.....	16	1,746	3,371,694	7,493,530	8,116,435	15,928,517
<b>Clothing (Textile and Fur)...</b>	<b>2,988</b>	<b>105,868</b>	<b>146,265,152</b>	<b>285,568,957</b>	<b>263,018,398</b>	<b>551,331,576</b>
<b>Men's, Women's and Child- ren's Clothing.....</b>	<b>1,884</b>	<b>63,391</b>	<b>89,774,535</b>	<b>174,735,283</b>	<b>160,286,107</b>	<b>335,981,019</b>
Clothing, men's factory....	537	27,822	38,114,832	83,033,566	69,220,286	152,706,971
Clothing, women's factory....	1,108	29,963	44,985,178	91,138,141	82,818,768	174,353,223
Clothing contractors, men's	139	3,906	4,662,498	392,652	5,595,226	6,070,989
Clothing contractors, women's.....	100	1,700	2,012,027	170,924	2,651,827	2,849,836
<b>Knitted Goods.....</b>	<b>247</b>	<b>24,941</b>	<b>30,210,507</b>	<b>47,270,879</b>	<b>56,681,420</b>	<b>105,208,699</b>
<b>Miscellaneous Clothing....</b>	<b>857</b>	<b>17,536</b>	<b>26,280,110</b>	<b>63,562,795</b>	<b>46,050,871</b>	<b>110,141,858</b>
Corsets.....	39	2,827	3,289,067	5,111,692	6,969,249	12,115,586
Fur goods.....	593	6,264	10,512,674	39,394,072	18,195,296	57,737,516
Fur dressing and dyeing....	24	1,651	2,475,934	1,026,978	3,883,270	5,010,539
Hats and caps.....	171	5,587	8,551,022	14,906,436	14,414,005	29,533,450
Oiled and waterproofed clothing.....	15	561	813,533	2,040,637	1,512,264	3,572,136
Gloves and mittens, fabric....	15	646	637,880	1,082,980	1,076,787	2,172,631
<b>Wood Products.....</b>	<b>8,846</b>	<b>105,472</b>	<b>142,338,538</b>	<b>297,923,979</b>	<b>256,436,946</b>	<b>560,341,251</b>
<b>Furniture.....</b>	<b>824</b>	<b>19,217</b>	<b>28,213,893</b>	<b>34,719,631</b>	<b>42,546,833</b>	<b>78,241,125</b>
<b>Saw and Planing Mills.....</b>	<b>7,135</b>	<b>69,846</b>	<b>93,136,151</b>	<b>220,616,355</b>	<b>179,888,023</b>	<b>404,381,973</b>
Flooring, hardwood.....	22	1,321	1,790,747	4,177,925	3,382,758	7,683,473
Veneer and plywood.....	34	5,161	7,905,365	12,829,383	15,672,104	28,867,679
Planing mills, sash and door factories.....	1,078	14,012	19,628,779	47,501,520	31,424,769	79,920,764
Sawmills.....	6,001	49,352	63,811,260	156,107,527	129,408,392	287,910,057
<b>Miscellaneous Wood Prod- ucts.....</b>	<b>887</b>	<b>16,409</b>	<b>20,988,494</b>	<b>42,587,993</b>	<b>34,002,090</b>	<b>77,718,153</b>
Boxes and baskets, wooden	188	4,939	6,194,292	10,420,131	9,548,831	20,284,752
Coffins and caskets.....	53	1,260	1,669,640	2,047,593	2,648,068	4,768,407
Beekkeepers' and poultry- men's supplies.....	12	164	159,699	240,348	389,399	639,217
Excelsior.....	9	170	205,302	233,037	332,680	581,925
Lasts, trees and other wood- en shoe findings.....	19	772	979,331	921,770	1,419,482	2,377,042
Cooperage.....	66	916	1,300,643	3,373,943	2,084,040	5,540,839
Refrigerators, non-electric....	14	379	617,601	708,228	1,176,462	1,902,213
Woodenware.....	29	819	902,392	792,543	1,163,909	1,983,339
Wood turning.....	85	1,776	2,051,709	2,498,066	3,024,910	5,595,731
Miscellaneous (including charcoal and wood preser- vation).....	412	5,214	6,907,885	21,347,334	12,214,309	34,064,688
<b>Paper Products.....</b>	<b>486</b>	<b>67,442</b>	<b>134,320,546</b>	<b>313,410,656</b>	<b>333,819,710</b>	<b>695,085,534</b>
Boxes and bags, paper.....	160	11,975	16,476,657	41,169,182	32,759,600	74,500,862
Pulp and paper.....	113	44,967	101,364,636	223,448,338	258,164,578	527,814,916
Roofing paper, wallboard, etc.....	21	2,015	3,269,745	11,577,563	10,801,868	22,785,134
Miscellaneous (including wall paper).....	192	8,485	13,209,508	37,215,573	32,093,664	69,984,622



# 11.—Principal Statistics of Individual Manufacturing Industries, Classified on the Standard Classification Basis, 1946—continued

Industrial Group	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>Printing, Publishing and Allied Trades.</b>	<b>2,404</b>	<b>48,950</b>	<b>86,433,880</b>	<b>65,501,698</b>	<b>154,951,731</b>	<b>222,548,636</b>
Printing and bookbinding.....	1,406	19,376	30,219,639	29,038,267	48,873,014	78,647,105
Blue printing.....	25	219	321,507	242,727	602,967	859,219
Trade composition.....	39	522	1,054,167	185,294	1,614,885	1,821,874
Printing and publishing.....	775	21,462	39,846,308	24,578,088	78,689,074	104,305,064
Engraving stereotyping and electrotyping.....	111	3,675	8,015,671	2,800,884	12,842,983	15,805,321
Lithographing.....	48	3,696	6,976,588	8,656,438	12,328,808	21,110,053
<b>Iron and Steel Products.</b>	<b>2,086</b>	<b>151,373</b>	<b>279,567,770</b>	<b>337,981,814</b>	<b>461,501,765</b>	<b>824,766,017</b>
Agricultural implements.....	51	13,866	25,475,108	32,852,259	29,224,224	63,238,542
Boilers and plate work.....	44	5,042	9,974,544	9,791,684	16,407,706	26,710,902
Bridge and other structural shapes.....	25	6,091	12,825,390	18,896,434	20,586,758	40,122,695
Hardware tools and cutlery.....	276	15,868	27,259,296	22,832,598	48,915,105	73,059,549
Heating and cooking apparatus.....	97	7,825	13,027,604	13,098,796	22,269,456	35,979,749
Machinery.....	299	27,003	50,246,824	50,760,795	93,081,472	145,638,248
Castings, iron.....	219	16,925	31,381,935	27,446,850	52,484,740	82,278,070
Machine shops.....	460	5,458	9,694,842	6,343,877	13,725,661	20,452,712
Primary iron and steel.....	59	24,196	50,515,897	68,468,433	71,582,060	153,082,616
Sheet metal products.....	230	16,858	27,574,283	62,991,981	51,288,120	115,699,555
Wire and wire goods.....	97	6,140	11,130,686	12,528,160	26,711,743	40,133,889
Miscellaneous iron products.....	229	6,101	10,461,361	11,978,947	15,274,720	28,369,490
<b>Transportation Equipment.</b>	<b>539</b>	<b>100,745</b>	<b>200,097,765</b>	<b>301,206,839</b>	<b>279,333,127</b>	<b>590,128,311</b>
Aircraft.....	16	11,405	24,459,085	6,708,468	28,715,253	36,210,906
Bicycles.....	7	707	1,217,162	1,725,538	1,886,704	3,686,374
Boats and canoes.....	196	1,802	2,364,958	1,821,648	3,006,917	4,906,259
Automobiles.....	9	21,647	43,968,772	135,556,183	55,914,441	193,439,688
Automobile parts and access- ories.....	124	15,348	27,808,618	43,519,483	48,250,348	93,428,899
Railway rolling-stock.....	37	28,553	57,815,845	83,937,365	74,655,059	162,159,521
Shipbuilding and repairs.....	79	20,246	40,975,731	25,915,348	64,555,796	91,851,460
Carriages, wagons and sleighs.....	62	455	591,640	685,504	839,707	1,554,442
Automobile accessories, fabric.....	9	582	895,954	1,337,302	1,528,897	2,890,762
<b>Non-Ferrous Metal Products.</b>	<b>474</b>	<b>40,855</b>	<b>75,855,699</b>	<b>311,082,975</b>	<b>148,492,336</b>	<b>484,618,453</b>
Aluminum products.....	53	4,860	8,959,446	17,113,209	15,627,841	33,575,481
Brass and copper products.....	162	10,252	18,425,724	39,983,930	30,874,312	72,056,922
Jewellery, electro-plated ware, etc.....	172	6,691	10,507,305	22,873,016	18,411,485	41,528,678
Non-ferrous metal smelting and refining.....	15	14,546	30,648,361	212,865,030	69,565,922	304,718,524
White metal alloys.....	47	3,414	5,600,124	15,851,099	9,847,248	26,128,907
Miscellaneous non-ferrous metal products.....	25	1,092	1,714,739	2,396,691	4,165,528	6,609,941
<b>Electrical Apparatus and Supplies.</b>	<b>266</b>	<b>43,998</b>	<b>74,510,479</b>	<b>101,939,272</b>	<b>129,968,926</b>	<b>234,572,653</b>
<b>Non-Metallic Mineral Products.</b>	<b>833</b>	<b>24,387</b>	<b>39,651,286</b>	<b>49,957,966</b>	<b>94,591,439</b>	<b>160,476,827</b>
Abrasive products.....	15	2,409	4,929,448	8,425,629	14,912,438	25,444,396
Asbestos products.....	12	965	1,531,702	2,953,823	3,216,643	6,409,116
Cement.....	8	1,524	2,929,020	4,306,467	12,930,058	21,724,021
Cement products.....	262	2,552	3,705,343	5,719,815	7,753,355	13,975,399
Clay products— Clay products, domestic.....	119	3,437	5,115,962	278,125	9,563,690	12,207,367
Clay products, imported.....	32	1,913	2,870,543	1,674,391	4,958,209	7,073,371
Sand-lime brick.....	5	134	236,566	211,920	392,210	651,781
Glass products.....	114	5,921	9,278,360	10,583,240	15,158,454	27,605,255
Gypsum products.....	10	905	1,298,693	4,076,812	4,266,247	8,755,090
Lime.....	41	918	1,616,839	456,613	4,910,127	7,322,168
Salt.....	9	713	918,566	993,304	2,890,423	4,480,839
Stone, monumental and orna- mental.....	147	1,541	2,643,298	2,906,528	5,863,829	9,063,895
Miscellaneous.....	59	1,455	2,576,946	7,371,299	7,775,756	15,764,129
<b>Products of Petroleum and Coal.</b>	<b>77</b>	<b>12,106</b>	<b>24,197,354</b>	<b>190,527,903</b>	<b>79,046,757</b>	<b>286,007,855</b>
Coke and gas products.....	34	4,961	9,348,213	34,709,159	62,582,475	122,425,380
Petroleum products.....	43	7,145	14,849,141	155,818,744	57,447,611	223,425,380

### 11.—Principal Statistics of Individual Manufacturing Industries, Classified on the Standard Classification Basis, 1946—concluded

Industrial Group	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>Chemical Products</b> .....	<b>1,031</b>	<b>38,012</b>	<b>67,842,339</b>	<b>179,749,719</b>	<b>208,399,498</b>	<b>401,741,703</b>
Acids, alkalies and salts.....	29	5,338	11,158,999	14,650,883	26,219,014	47,301,400
Fertilizers.....	29	2,805	5,929,796	22,865,328	23,895,016	49,992,443
Medicinal and pharmaceutical preparations.....	201	7,670	12,832,173	23,163,222	43,446,027	67,049,834
Paints, pigments and varnishes.....	98	5,006	8,847,406	28,733,401	27,529,707	56,729,620
Plastics, primary.....	78	3,219	4,964,045	8,465,878	12,456,492	21,240,140
Soaps, washing compounds, etc.....	150	3,219	6,213,581	19,268,952	18,360,080	38,274,818
Toilet preparations.....	91	1,995	2,729,367	7,622,735	12,440,886	20,117,113
Vegetable oil mills.....	14	734	1,303,807	20,441,369	4,760,056	25,453,439
Miscellaneous chemicals:—						
Inks, printing and writing..	30	653	1,330,097	2,770,760	3,414,826	6,244,648
Adhesives.....	22	674	1,223,032	3,749,579	2,812,350	6,784,313
Polishes and dressings.....	48	726	1,096,194	5,258,115	4,260,364	9,558,330
Coal tar distillation.....	11	410	740,619	3,116,167	2,052,078	5,569,727
Gases, compressed.....	42	1,064	1,961,493	1,258,423	6,735,081	8,308,028
Wood distillation.....	4	170	236,305	540,228	394,103	999,790
Miscellaneous.....	184	4,329	7,275,425	17,844,679	19,623,418	38,178,060
<b>Miscellaneous Manufacturing Industries</b> .....	<b>715</b>	<b>21,149</b>	<b>31,158,253</b>	<b>49,954,677</b>	<b>60,247,499</b>	<b>111,497,798</b>
Brooms, brushes and mops...	88	2,572	3,475,859	7,332,183	6,286,134	13,730,113
Mattresses and springs.....	77	3,485	5,949,548	14,979,041	12,027,749	27,217,843
Musical instruments.....	25	1,018	1,471,668	1,095,670	2,158,867	3,324,363
Fountain pens and pencils...	10	1,462	1,963,245	4,223,043	5,696,637	9,956,516
Scientific and professional equipment.....	45	2,226	4,070,084	5,979,164	8,260,375	14,384,569
Sporting goods.....	41	1,324	1,668,542	2,315,917	2,477,094	4,849,211
Toys and games.....	50	1,456	1,736,996	2,224,510	3,327,996	5,609,323
Typewriter supplies.....	8	334	620,274	1,442,410	1,261,401	2,722,243
Miscellaneous industries—						
Statuary, art goods and novelties.....	93	1,180	1,409,335	1,334,889	2,068,783	3,428,806
Lamps, electric and lamp shades.....	35	914	1,137,804	2,129,128	2,137,497	4,293,092
Artificial flowers and feathers.....	35	749	827,817	867,783	1,440,324	2,318,376
Signs, electric, neon and other.....	35	847	1,616,145	838,754	2,785,255	3,704,538
Hair goods, animal and human.....	20	350	412,689	904,449	531,247	1,445,960
Umbrellas.....	6	144	170,844	428,407	437,441	867,510
Tobacco pipes.....	6	52	60,626	37,987	79,003	118,870
Buttons.....	18	986	1,468,667	1,757,419	2,480,099	4,296,827
Stamps and stencils, rubber and metal.....	45	576	933,801	493,215	1,563,289	2,075,708
Miscellaneous, including jewellery cases, etc.....	11	440	533,639	618,186	812,196	1,444,486
Ice, artificial.....	55	777	1,278,934	147,996	3,542,191	4,010,461
Candles.....	12	257	351,736	804,526	873,921	1,698,983
<b>Totals, All Industries</b> .....	<b>31,249</b>	<b>1,058,156</b>	<b>1,740,687,254</b>	<b>4,358,234,766</b>	<b>3,467,004,980</b>	<b>8,035,692,471</b>

### Subsection 3.—Manufactures Classified by the Purpose of the Products

Significant changes have occurred since 1922 in the importance of the various groups shown in the purpose classification. On the basis of the percentage of gross value of production, the most striking change was in the food group which showed a substantial decline from 28 p.c. of the total in 1922 to 23 p.c. in 1939, 21 p.c. in 1945 and back to 23 p.c. in 1946. The producer materials group, which took

the lead from the food group in 1923, showed a steady increase up to 1939, since when it has remained at about 30 p.c. of the total. Due to the production of war equipment, vehicles and vessels increased from 8 p.c. in 1939 to 13 p.c. in 1945 and dropped again to 8 p.c. in 1946. Industrial equipment rose from 15 p.c. to 16 p.c. The other groups with the exception of "miscellaneous" showed slight declines during the war years.

**12.—Principal Statistics of the Manufacturing Industries, Classified according to Purpose of Principal Product, by Main Groups, Significant Years, 1929-46**

Year and Purpose Group	Estab- lish- ments	Capital	Em- ployees	Salaries and Wages	Cost of Materials	Gross Value of Products
1929	No.	\$	No.	\$	\$	\$
Food.....	8,351	463,984,558	94,707	87,960,036	597,396,238	837,986,384
Drink and tobacco.....	599	201,365,785	18,976	21,670,376	65,440,053	208,968,998
Clothing.....	1,680	223,376,104	93,935	88,914,849	172,726,557	336,452,685
Personal utilities.....	380	56,155,234	11,148	13,595,331	29,389,246	61,191,750
House furnishings.....	600	76,185,921	20,857	23,248,775	34,293,465	77,811,331
Books and stationery.....	1,917	144,222,275	38,141	56,003,183	45,384,362	155,947,960
Vehicles and vessels.....	781	310,942,038	61,835	91,239,185	243,258,350	407,947,648
Producers' materials.....	6,227	1,776,758,115	223,071	258,255,079	524,193,104	1,154,908,260
Industrial equipment.....	1,576	719,112,914	99,922	131,820,142	304,581,449	614,827,756
Miscellaneous.....	105	32,789,065	3,939	4,584,261	13,007,989	27,403,344
<b>Totals, 1929.....</b>	<b>22,216</b>	<b>4,004,892,009</b>	<b>666,531</b>	<b>777,291,217</b>	<b>2,029,670,813</b>	<b>3,883,446,116</b>
1933						
Food.....	8,759	408,995,499	75,434	68,652,798	313,760,942	492,729,174
Drink and tobacco.....	670	185,612,678	18,289	17,626,141	40,454,300	98,409,638
Clothing.....	1,922	143,382,092	75,363	56,001,234	103,209,050	194,627,734
Personal utilities.....	601	39,681,900	8,938	8,616,372	15,323,848	35,589,961
House furnishings.....	654	66,047,002	15,587	12,887,200	16,022,584	38,684,649
Books and stationery.....	2,170	132,507,101	34,300	42,830,661	28,818,380	103,477,707
Vehicles and vessels.....	479	222,153,543	37,618	35,725,625	56,917,292	120,992,781
Producers' materials.....	6,564	1,459,599,284	189,734	126,208,238	252,383,314	573,991,467
Industrial equipment.....	1,819	588,147,285	60,061	64,155,426	133,382,392	277,075,032
Miscellaneous.....	142	23,163,454	3,334	3,544,129	7,516,826	18,497,642
<b>Totals, 1933.....</b>	<b>23,780</b>	<b>3,279,259,838</b>	<b>468,658</b>	<b>436,247,824</b>	<b>967,788,928</b>	<b>1,954,075,785</b>
1939						
Food.....	8,529	451,298,489	99,983	101,904,518	526,619,353	784,072,722
Drink and tobacco.....	657	190,313,279	23,489	27,051,038	74,295,571	164,812,439
Clothing.....	2,178	187,495,826	97,220	83,762,588	146,201,614	275,567,762
Personal utilities.....	623	46,866,657	12,623	13,771,704	26,408,179	57,043,684
House furnishings.....	767	93,773,837	27,647	28,417,336	40,528,394	88,800,804
Books and stationery.....	2,452	143,293,147	41,804	56,466,921	47,916,777	144,288,052
Vehicles and vessels.....	364	269,734,181	54,673	72,238,590	141,704,269	266,089,493
Producers' materials.....	7,095	1,580,602,852	201,849	229,381,185	559,816,486	1,130,510,177
Industrial equipment.....	1,957	650,305,878	93,235	117,754,260	257,416,598	528,678,421
Miscellaneous.....	183	33,340,303	5,591	7,063,013	15,252,136	34,919,974
<b>Totals, 1939.....</b>	<b>24,805</b>	<b>3,647,024,449</b>	<b>658,114</b>	<b>737,811,153</b>	<b>1,836,159,375</b>	<b>3,474,783,528</b>
1944	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials Used	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
Food.....	8,435	136,747	183,795,031	1,271,356,037	408,862,849	1,702,330,839
Drink and tobacco.....	635	28,566	44,140,376	118,406,602	159,387,626	281,731,695
Clothing.....	2,713	117,056	146,623,855	284,018,437	242,324,720	529,230,834
Personal utilities.....	758	18,922	26,130,683	54,417,448	95,949,718	115,502,040
House furnishings.....	908	38,940	58,426,100	83,231,172	100,932,323	187,175,054
Books and stationery.....	2,468	47,319	76,542,070	75,882,848	141,795,037	219,966,613
Vehicles and vessels.....	413	222,604	454,449,952	637,341,589	771,461,866	1,425,858,778
Producers' materials.....	8,990	343,035	567,699,762	1,369,160,212	1,142,646,292	2,646,303,770
Industrial equipment.....	2,889	216,279	385,434,071	697,897,961	781,329,594	1,512,623,216
Miscellaneous.....	274	53,414	86,379,470	240,621,050	207,086,275	452,969,680
<b>Totals, 1944.....</b>	<b>28,483</b>	<b>1,222,882</b>	<b>2,029,621,370</b>	<b>4,832,333,356</b>	<b>4,015,776,010</b>	<b>9,073,692,519</b>



**12.—Principal Statistics of the Manufacturing Industries, Classified according to Purpose of Principal Product, by Main Groups, Significant Years, 1929-46—concluded.**

Year and Purpose Group	Estab-lish-ments	Em-ployees	Salaries and Wages	Cost of Materials Used	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>1945</b>						
Food.....	8,310	138,798	193,248,422	1,275,251,323	421,151,585	1,719,329,106
Drink and tobacco.....	648	29,762	47,398,501	140,745,224	180,081,452	324,989,427
Clothing.....	3,046	123,681	159,792,122	303,595,189	266,681,013	573,291,033
Personal utilities.....	780	20,998	29,266,421	61,739,904	66,176,283	129,130,335
House furnishings.....	1,102	41,204	61,922,834	90,428,186	102,341,665	195,859,702
Books and stationery.....	2,502	51,276	85,428,837	84,949,518	156,991,699	244,398,179
Vehicles and vessels.....	442	160,321	331,825,962	507,145,106	562,302,572	1,084,076,890
Producers' materials.....	8,941	320,974	529,821,323	1,258,478,355	1,046,626,043	2,428,836,653
Industrial equipment.....	2,996	199,851	351,884,793	653,419,689	662,460,315	1,348,434,924
Miscellaneous.....	283	32,507	55,184,234	97,916,353	99,503,272	202,022,612
<b>Totals, 1945.....</b>	<b>29,050</b>	<b>1,119,372</b>	<b>1,845,773,449</b>	<b>4,473,668,847</b>	<b>3,564,315,899</b>	<b>8,250,368,866</b>
<b>1946</b>						
Food.....	8,307	142,948	208,246,768	1,344,869,257	445,583,247	1,814,909,474
Drink and tobacco.....	659	29,435	48,852,221	144,197,521	201,409,448	349,914,231
Clothing.....	3,401	132,018	179,302,900	344,488,916	313,084,058	660,852,502
Personal utilities.....	831	22,878	33,330,845	72,388,600	74,217,740	147,894,182
House furnishings.....	1,380	46,552	72,474,444	113,497,880	124,634,329	241,541,217
Books and stationery.....	2,591	56,642	98,160,792	100,762,002	183,400,588	286,843,601
Vehicles and vessels.....	466	106,870	209,206,556	318,485,632	323,005,130	653,216,763
Producers' materials.....	10,148	320,766	541,037,792	1,260,493,056	1,121,849,111	2,508,083,992
Industrial equipment.....	3,224	191,864	336,665,748	624,737,938	649,538,467	1,306,685,056
Miscellaneous.....	242	8,183	13,409,188	34,313,964	30,282,862	65,751,453
<b>Totals, 1946.....</b>	<b>31,249</b>	<b>1,058,156</b>	<b>1,740,687,254</b>	<b>4,358,234,766</b>	<b>3,467,004,980</b>	<b>8,035,692,471</b>

**13.—Principal Statistics of Individual Manufacturing Industries, Classified according to Purpose of Principal Product, 1946**

Year and Purpose Group	Estab-lish-ments	Em-ployees	Salaries and Wages	Cost of Materials Used	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>Food.....</b>	<b>8,307</b>	<b>142,948</b>	<b>208,246,768</b>	<b>1,344,869,257</b>	<b>445,583,247</b>	<b>1,814,909,474</b>
Breadstuffs.....	4,128	54,049	76,928,508	360,951,716	164,019,836	533,828,367
Fish.....	586	11,327	13,799,809	68,012,828	31,084,775	100,201,291
Fruit and vegetable prepara-tions.....	513	16,373	19,168,778	83,434,146	50,680,350	136,004,138
Meats.....	221	23,135	41,107,828	412,277,055	66,696,721	482,110,033
Milk products.....	2,300	22,679	33,213,903	218,284,499	68,101,014	291,799,884
Oils and fats.....	8	148	282,372	639,978	467,612	1,179,080
Sugar.....	11	2,633	5,010,739	45,900,913	13,748,222	61,181,621
Miscellaneous.....	540	12,604	18,734,781	155,368,122	50,784,717	208,605,060
<b>Drink and Tobacco.....</b>	<b>659</b>	<b>29,435</b>	<b>48,852,221</b>	<b>144,197,521</b>	<b>201,409,448</b>	<b>349,914,231</b>
Beverages, alcoholic.....	79	12,719	24,866,282	44,854,252	128,596,924	176,418,945
Beverages, non-alcoholic.....	485	5,867	9,575,381	20,087,284	32,830,899	53,861,070
Tobacco.....	95	10,849	14,410,558	79,255,405	39,981,625	119,634,216
<b>Clothing.....</b>	<b>3,401</b>	<b>132,018</b>	<b>179,302,900</b>	<b>344,488,916</b>	<b>313,084,058</b>	<b>660,852,502</b>
Boots and shoes, leather.....	294	22,334	29,023,596	52,340,814	43,612,607	96,435,251
Fur goods.....	617	7,915	12,988,608	40,421,050	22,078,566	62,748,055
Garments and personal fur-nishings.....	1,923	66,218	93,063,602	179,846,975	167,255,356	348,096,605
Gloves and mittens.....	99	3,713	3,824,215	6,794,342	6,089,516	12,939,930
Hats and caps.....	206	6,336	9,378,839	15,774,219	15,854,329	31,851,826
Knit goods.....	247	24,941	30,210,507	47,270,879	56,681,420	105,208,699
Waterproofs.....	15	561	813,533	2,040,637	1,512,264	3,572,136
<b>Personal Utilities.....</b>	<b>831</b>	<b>22,878</b>	<b>33,330,845</b>	<b>72,388,600</b>	<b>74,217,740</b>	<b>147,894,182</b>
Jewellery and time-pieces.....	172	6,691	10,507,305	22,873,016	18,411,485	41,522,678
Recreational supplies.....	116	3,798	4,877,206	5,636,097	7,963,957	13,782,897
Personal utilities.....	543	12,389	17,946,334	43,879,487	47,842,298	92,582,607



**13.—Principal Statistics of Individual Manufacturing Industries, Classified according to Purpose of Principal Product, 1946—concluded**

Year and Purpose Group	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials Used	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>House Furnishings</b> .....	1,380	46,552	72,474,444	113,497,880	124,634,329	241,541,217
<b>Books and Stationery</b> .....	2,591	56,642	98,160,792	100,762,002	183,400,588	286,843,601
<b>Vehicles and Vessels</b> .....	466	106,870	209,206,556	318,485,632	323,005,130	653,216,763
<b>Producers' Materials</b> .....	10,148	320,766	541,037,792	1,260,493,056	1,121,849,111	2,508,083,992
Farm material.....	29	2,805	5,929,796	22,865,328	23,895,016	49,992,443
Manufacturers' materials.....	1,411	194,597	360,212,521	839,981,923	740,841,534	1,683,547,929
Building materials.....	8,140	98,030	139,497,348	309,834,982	291,185,010	617,908,503
General materials.....	568	25,334	35,398,127	87,810,823	65,927,551	156,635,117
<b>Industrial Equipment</b> .....	3,224	191,864	336,665,748	624,737,938	649,538,467	1,306,685,056
Farming equipment.....	63	14,030	25,634,807	32,092,607	29,613,614	63,877,759
Manufacturing equipment.....	318	27,775	51,226,155	51,682,565	94,450,954	148,015,290
Trading equipment.....	143	2,534	4,449,154	2,922,375	9,152,136	12,512,950
Service equipment.....	392	12,336	19,981,232	32,524,868	56,423,253	89,631,616
Light, heat and power equip- ment.....	408	61,426	109,112,268	303,475,099	226,191,406	549,293,858
General equipment.....	1,900	73,763	126,262,132	201,040,424	233,707,104	443,353,583
<b>Miscellaneous</b> .....	242	8,183	13,409,188	34,313,964	30,232,862	65,751,453

Table 14 has been included in order to give the amount and value of each of the principal commodities produced by the manufacturing industries of Canada. The list is not intended to be complete since a large number of commodities are produced in such small quantities that to include them would extend the table considerably without adding proportionately to its value. The commodities listed, however, cover approximately 75 p.c. of total production.

**14.—Quantities and Values of the Principal Commodities Produced by the Manufacturing Industries, Grouped by Purpose, 1946**

Group and Commodity	Unit of Measure	Quantity	Value
<b>Food—</b>			\$
Biscuits, all kinds.....	ton	74,678	26,924,590
Bread, pies, cakes, etc.....	...	...	130,575,355
Butter, factory made.....	lb.	271,469,899	105,443,878
Cheese, factory made.....	"	193,065,192	44,570,433
Confectionery, all kinds.....	...	...	40,349,056
Cream, sold in dairy factories.....	lb.	25,545,263	19,708,985
Feed, chopped grain.....	ton	1,440,706	56,038,134
Fish, canned or otherwise prepared.....	...	...	56,310,727
Flour, wheat.....	bbl.	27,176,463	164,358,697
Feeds, stock, and poultry.....	ton	1,508,400	74,498,226
Fruits and vegetables, canned.....	lb.	518,307,717	43,107,087
Ice cream, factory made.....	gal.	13,953,012	17,244,273
Jams, jellies and marmalades.....	lb.	93,830,055	12,547,802
Lard.....	"	46,230,527	6,755,057
Meats, canned including poultry, pastes, etc.....	"	210,098,653	43,710,776
Meats, cured.....	"	423,059,602	109,206,423
Meats, sold fresh.....	"	981,271,716	203,586,876
Milk, sold in dairy factories.....	gal.	131,851,780	61,350,011
Milk, evaporated or condensed.....	lb.	234,203,080	20,821,680
Pickles, sauces and catsup.....	...	...	10,099,772
Powders, edible.....	lb.	100,476,942	27,610,364
Sausage, fresh or cured.....	"	124,992,807	26,997,135
Shortening.....	"	107,980,525	15,770,393
Sugar, granulated (cane and beet).....	"	829,298,810	51,117,520
Tea and coffee, roasted, blended and packed.....	"	117,514,653	56,402,907

### 14.—Quantities and Values of the Principal Commodities Produced by the Manufacturing Industries, Grouped by Purpose, 1946—continued

Group and Commodity	Unit of Measure	Quantity	Value \$
<b>Drink and Tobacco—<sup>1</sup></b>			
Aerated waters.....	gal.	55,732,936	37,060,154
Beer, ale, stout and porter.....	"	151,310,090	182,641,103
Cigarettes.....	M	15,263,780	208,027,668
Cigars.....	"	219,985	14,690,822
Spirits, potable, sold (net sales).....	Pr gal.	11,125,219	59,132,546
Tobacco, chewing, smoking and snuff.....	lb.	29,772,338	46,680,739
Tobacco, raw leaf, processed.....	"	86,684,588	37,834,249
Wine, sold.....	gal.	4,937,143	9,621,528
<b>Clothing—</b>			
Coats and overcoats, men's, boys' and women's.....	No.	2,976,952	91,696,373
Dresses, women's and misses'.....	"	12,409,263	55,674,727
Footwear, leather.....	pr.	35,358,064	86,410,052
Footwear, rubber.....	"	18,687,125	26,223,520
Hats, and caps, men's and boys'.....	doz.	698,310	12,955,519
Hats, women's.....	"	437,341	9,791,208
Hosiery, all kinds.....	"	8,848,380	44,889,938
Shirts, fine and work.....	"	1,127,553	16,620,277
Suits, men's and boys'.....	No.	1,936,793	37,891,500
Suits, women's and misses'.....	"	659,634	11,774,155
Underwear.....	doz.	3,583,321	22,826,476
Uniforms, woollen.....	No.	175,065	2,953,171
<b>Personal Utilities—</b>			
Bags, leather.....	"	"	10,886,331
Jewellery.....	"	"	13,582,741
Pianos, organs and parts.....	"	"	1,856,654
Plated ware, all kinds.....	"	"	10,356,569
Radio sets and accessories <sup>2</sup> .....	"	"	32,788,274
Soap.....	lb.	231,506,582	27,586,756
Sporting goods.....	"	"	7,152,272
Toilet preparations and perfumes.....	"	"	17,475,521
Toys and games.....	"	"	9,769,274
<b>House Furnishings—</b>			
Blankets, all kinds.....	lb.	10,072,780	8,273,308
Brooms and brushes.....	"	"	12,722,041
Carpets, mats and rugs.....	"	"	6,279,778
Furniture, household, incl. beds and couches.....	"	"	63,626,554
Kitchenware.....	"	"	9,572,904
Mattresses.....	No.	1,138,399	12,681,333
Mops.....	"	"	1,214,249
Springs, bed and other furniture.....	"	"	5,380,109
Stoves, coal, wood, electric or gas.....	"	"	20,197,993
<b>Books and Stationery—</b>			
Advertising matter, printed.....	"	"	18,083,133
Books and catalogues, printed.....	"	"	6,161,194
Circulars, letters, bank notes, etc., printed.....	"	"	12,040,229
Periodicals, printed for publishers.....	"	"	11,644,229
Periodicals, printed by publishers—	"	"	"
Subscriptions and sales.....	"	"	32,802,776
Gross revenue from advertising.....	"	"	56,276,973
Sheet forms, commercial, printed.....	"	"	19,365,778
<b>Vehicles and Vessels—</b>			
Aircraft, including parts and repairs.....	"	"	33,640,592
Automobiles, commercial.....	No.	79,657	81,204,338
Automobiles, passenger.....	"	91,871	82,847,330
Automobile parts and accessories, incl. tires, etc.....	"	"	209,674,460
Cars and locomotives, and parts.....	"	"	61,382,093
Ships and ship repairs.....	"	"	101,150,554
<b>Miscellaneous—</b>			
Abrasives, artificial.....	"	"	18,271,737
Bags, cotton or jute.....	doz.	11,839,407	25,560,986
Bags, paper.....	"	"	15,182,322
Bars, iron or steel, hot rolled.....	net ton	377,260	28,448,498
Batteries, electric, and parts.....	"	"	17,507,203

<sup>1</sup>Includes excise taxes on tobacco products and prime cost of spirits. communication equipment" under "Miscellaneous".

<sup>2</sup>See also "Radio com-

# 14.—Quantities and Values of the Principal Commodities Produced by the Manufacturing Industries, Grouped by Purpose, 1946—concluded

Group and Commodity	Unit of Measure	Quantity	Value
			\$
<b>Miscellaneous—concluded</b>			
Blooms, billets and slabs.....	net ton	225,859	10,227,549
Boilers, heating and power, and parts.....	"	"	11,922,435
Boxes, paper or wood.....	"	"	72,140,897
Calcium or sodium compounds.....	"	"	21,997,276
Cans, tin.....	"	"	49,673,455
Castings, iron (made for sale).....	ton	214,624	30,951,810
Coke.....	"	3,363,109	32,676,130
Cotton fabrics.....	yd.	304,852,413	55,593,632
Enamels, lacquers and varnishes.....	"	"	23,549,863
Explosives.....	"	"	7,654,592
Farm implements and parts.....	"	"	52,247,004
Ferro-alloys.....	"	"	11,114,234
Forgings, steel and other.....	"	"	7,442,308
Gas, sold.....	M cu. ft.	22,503,927	20,916,981
Gases, compressed and liquefied.....	"	"	12,728,644
Gasoline.....	imp. gal.	1,017,620,703	117,836,804
Glass, pressed and blown.....	"	"	15,659,180
Hardware, builders' and other.....	"	"	12,239,355
Leather, shoe.....	"	"	39,911,342
Lumber, sawn rough and planed.....	"	"	259,267,662
Machinery, all kinds and parts.....	"	"	185,804,093
Medicines and pharmaceuticals.....	"	"	54,441,506
Munitions and other war supplies.....	"	"	8,355,989
Oil, fuel and gas.....	imp. gal.	965,101,806	52,446,338
Paints, mixed, ready for use.....	"	9,687,254	25,226,843
Paper, newsprint, wrapping and book.....	"	"	312,626,930
Paper boards.....	"	"	58,489,845
Pipes and fittings, iron or steel.....	"	"	33,528,518
Plastics, primary.....	"	"	21,240,140
Plates, sheets, etc., iron or steel.....	net ton	456,932	36,147,670
Pulp, wood, made for sale.....	short ton	1,693,443	130,742,258
Radio communication equipment.....	"	"	6,750,778
Refrigerators, electric.....	No.	48,897	8,421,592
Rods and bars, brass, bronze, etc.....	lb.	176,635,553	5,856,704
Rods, copper wire.....	"	122,387,244	15,916,489
Rolled iron or steel forms, semi-finished.....	net ton	225,859	10,227,549
Sash, doors and other millwork.....	"	"	31,341,439
Scientific and professional equipment.....	"	"	14,384,569
Silk, artificial and mixtures, continuous filament.....	yd.	59,719,166	33,864,444
Smelter and refinery products.....	"	"	304,718,524
Spun rayon and mixtures.....	yd.	18,442,510	8,614,666
Steel ingots or castings (sold).....	net ton	117,863	20,969,581
Steel shapes erected, bridge, etc.....	"	"	22,155,792
Steel shapes, structural, made in primary mills.....	"	"	7,697,043
Tire fabrics.....	lb.	19,835,517	10,139,299
Tools, all kinds.....	"	"	23,682,083
Twine and rope.....	"	"	15,743,717
Wires and cables, electrical.....	"	"	39,434,000
Wire, wire rope and cable steel.....	"	"	15,088,287
Woollen cloth, woven or other.....	yd.	27,840,576	48,742,005
Yarn, cotton, artificial silk, wool, etc., made for sale.....	lb.	85,294,607	63,203,160

## Subsection 4.—Manufactures Classified by Origin of the Materials

The distinction made between farm materials of Canadian and foreign origin is based on whether the materials are indigenous to Canada rather than on their actual source. Thus, the industries included in the foreign origin classes are those depending upon materials that cannot be grown in Canada, such as tea, coffee, spices, cane sugar, rice, rubber and cotton. Industries included in the Canadian origin classes may, however, be using large quantities of imported materials.

The mineral origin group includes, in addition to the non-ferrous metals, so largely produced in Canada, the manufactures of iron and steel, of petroleum, and of other mineral substances, the raw materials for which are very largely imported. Products of mineral origin, with the exception of fuels, are nearly all durable goods. A high standard of living and advanced industrial organization is usually indicated

by a relatively large production and consumption of mineral products. During periods of depression when the production of capital goods is curtailed, employment in the industries of the farm group, which produce mainly consumer goods, exceeds that of the mineral group. The industries of the mineral group in 1943 had by far the greatest capital investment, employed the largest number of persons, and paid out the highest amount in salaries and wages. In 1943 the average capital per employee amounted to \$5,441 for the mineral group as compared with \$4,417 for the farm origin group. The mineral group also pays the highest wages. In 1946 the average salary and wage was \$1,861 for the mineral group and \$1,467 for the farm origin group.

**15.—Principal Statistics of the Manufacturing Industries, Classified according to the Origin of the Material Used, by Main Groups, Significant Years, 1929-46**

Year and Origin	Estab- lish- ments	Capital	Em- ployees	Salaries and Wages	Cost of Materials	Gross Value of Products
	No.	\$	No.	\$	\$	\$
<b>1929</b>						
Farm origin.....	9,041	969,384,866	181,682	188,306,755	852,606,083	1,396,769,569
Mineral origin.....	3,219	1,550,662,908	218,879	304,027,893	678,683,203	1,392,499,868
Forest origin.....	7,553	1,148,558,242	163,863	191,044,307	313,088,964	722,269,066
Marine origin.....	730	28,644,442	16,367	5,411,855	21,496,859	34,966,260
Wild life origin.....	234	14,338,686	3,767	4,783,323	12,847,817	20,861,039
Mixed origin.....	1,639	293,302,865	81,973	83,717,174	150,947,887	316,080,314
<b>Grand Totals, 1929.....</b>	<b>22,216</b>	<b>4,004,892,009</b>	<b>666,531</b>	<b>777,291,217</b>	<b>2,029,670,813</b>	<b>3,883,446,116</b>
Farm Origin Group—						
From field crops.....	5,191	697,206,163	114,236	115,201,292	496,842,589	889,075,246
From animal husbandry..	3,850	272,178,703	67,446	73,105,463	355,763,503	507,694,323
<b>Totals, Farm Origin.....</b>	<b>9,041</b>	<b>969,384,866</b>	<b>181,682</b>	<b>188,306,755</b>	<b>852,606,083</b>	<b>1,396,769,569</b>
Canadian origin.....	8,743	708,461,549	134,686	140,340,993	682,056,026	1,106,006,184
Foreign origin.....	298	260,923,317	47,002	47,965,762	170,550,057	290,763,385
<b>1933</b>						
Farm origin.....	9,695	844,582,058	153,602	137,711,749	454,882,704	791,956,470
Mineral origin.....	3,539	1,306,641,651	130,565	138,101,092	271,434,337	601,428,003
Forest origin.....	7,796	882,445,602	102,807	99,046,012	133,550,374	335,886,257
Marine origin.....	620	15,532,775	4,064	2,287,385	10,960,289	17,380,323
Wild life origin.....	335	10,507,157	3,498	3,481,885	7,159,079	13,000,927
Mixed origin.....	1,795	219,550,595	69,122	55,619,701	89,802,145	194,423,805
<b>Grand Totals, 1933.....</b>	<b>23,780</b>	<b>3,279,259,838</b>	<b>468,658</b>	<b>436,247,824</b>	<b>967,783,928</b>	<b>1,954,075,785</b>
Farm Origin Group—						
From field crops.....	5,746	609,044,529	93,433	81,655,182	263,097,043	494,048,930
From animal husbandry..	3,949	235,537,529	65,169	56,056,567	191,875,661	297,907,540
<b>Totals, Farm Origin.....</b>	<b>9,695</b>	<b>844,582,058</b>	<b>158,602</b>	<b>137,711,749</b>	<b>454,882,704</b>	<b>791,956,470</b>
Canadian origin.....	9,373	629,450,643	124,547	107,807,386	365,559,776	620,197,449
Foreign origin.....	322	215,131,415	34,055	29,904,363	89,322,928	171,759,021
<b>1939</b>						
Farm origin.....	10,203	952,929,892	220,210	217,724,965	778,250,125	1,289,993,021
Mineral origin.....	3,474	1,498,265,618	210,752	280,054,303	669,728,573	1,321,444,094
Forest origin.....	8,430	951,016,933	142,091	160,708,500	244,044,997	572,335,960
Marine origin.....	523	21,479,200	5,369	3,638,794	18,114,698	28,816,536
Wild life origin.....	384	14,723,743	4,604	5,396,623	11,592,066	19,961,526
Mixed origin.....	1,791	208,609,063	75,088	70,197,968	113,528,916	242,232,391
<b>Grand Totals, 1939.....</b>	<b>24,805</b>	<b>3,647,024,449</b>	<b>658,114</b>	<b>737,811,153</b>	<b>1,836,159,375</b>	<b>3,474,783,528</b>
Farm Origin Group—						
From field crops.....	6,096	649,746,486	124,708	126,311,033	410,994,461	759,964,866
From animal husbandry..	4,107	303,183,406	95,502	91,413,932	367,255,664	530,028,155
<b>Totals, Farm Origin.....</b>	<b>10,203</b>	<b>952,929,892</b>	<b>220,210</b>	<b>217,724,965</b>	<b>778,250,125</b>	<b>1,289,993,021</b>
Canadian origin.....	9,382	699,345,423	171,460	168,260,771	630,779,223	1,011,294,132
Foreign origin.....	821	253,584,469	48,750	49,464,194	147,470,902	278,698,889



15.—Principal Statistics of the Manufacturing Industries, Classified according to the Origin of the Material Used, by Main Groups, Significant Years, 1929-46—concluded.

Year and Origin	Estab-lish-ments	Em-employees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>1944</b>						
Farm origin.....	10,329	287,756	394,716,309	1,781,014,374	870,995,104	2,688,731,415
Mineral origin.....	4,479	634,542	1,208,779,764	2,258,796,792	2,312,260,844	4,708,104,244
Forest origin.....	10,347	186,680	278,171,969	495,531,476	541,521,976	1,082,160,284
Marine origin.....	535	9,664	10,327,695	45,906,542	22,066,801	68,882,879
Wild life origin.....	535	6,190	9,430,191	28,076,572	15,728,926	43,985,177
Mixed origin.....	2,258	98,050	128,195,442	223,007,600	253,202,359	481,828,520
<b>Grand Totals, 1944....</b>	<b>28,483</b>	<b>1,222,882</b>	<b>2,029,621,370</b>	<b>4,832,333,356</b>	<b>4,015,776,010</b>	<b>9,073,692,519</b>
Farm Origin Group—						
From field crops.....	6,307	164,514	226,751,705	888,435,918	563,349,320	1,477,008,962
From animal husbandry..	4,022	123,242	167,964,604	892,578,456	307,645,784	1,211,722,453
<b>Totals, Farm Origin.....</b>	<b>10,329</b>	<b>287,756</b>	<b>394,716,309</b>	<b>1,781,014,374</b>	<b>870,995,104</b>	<b>2,688,731,415</b>
Canadian origin.....	9,493	225,077	303,293,749	1,507,501,822	668,958,344	2,202,655,904
Foreign origin.....	836	62,679	91,422,560	273,512,552	202,036,760	486,075,511
<b>1945</b>						
Farm origin.....	10,346	296,224	416,822,843	1,801,780,401	921,956,062	2,761,024,764
Mineral origin.....	4,557	505,627	967,665,281	1,788,760,744	1,744,865,298	3,654,473,138
Forest origin.....	10,545	195,999	299,036,383	548,625,870	574,743,580	1,170,674,893
Marine origin.....	540	10,219	11,268,019	62,064,331	30,529,102	93,567,274
Wild life origin.....	591	7,199	11,303,522	36,280,969	18,300,106	54,773,683
Mixed origin.....	2,470	104,104	139,677,401	236,156,532	273,921,751	515,855,114
<b>Grand Totals, 1945....</b>	<b>29,050</b>	<b>1,119,372</b>	<b>1,845,773,449</b>	<b>4,473,668,847</b>	<b>3,564,315,899</b>	<b>8,250,368,866</b>
Farm origin Group—						
From field crops.....	6,245	168,907	239,224,361	926,639,188	605,036,663	1,556,904,150
From animal husbandry..	4,101	127,317	177,598,482	875,141,213	316,919,399	1,204,120,614
<b>Totals, Farm Origin..</b>	<b>10,346</b>	<b>296,224</b>	<b>416,822,843</b>	<b>1,801,780,401</b>	<b>921,956,062</b>	<b>2,761,024,764</b>
Canadian origin.....	9,486	231,708	321,688,225	1,537,044,535	708,624,007	2,273,013,255
Foreign origin.....	860	64,516	95,134,618	264,735,866	213,332,055	488,011,509
<b>1946</b>						
Farm origin.....	10,535	302,250	443,471,006	1,876,803,842	991,765,819	2,907,395,097
Mineral origin.....	4,954	406,378	756,332,727	1,430,525,795	1,365,653,544	2,904,496,837
Forest origin.....	11,883	220,446	358,033,891	676,542,601	736,212,028	1,468,630,801
Marine origin.....	586	11,327	13,799,809	68,012,828	31,084,775	100,201,291
Wild life origin.....	617	7,915	12,988,608	40,421,050	22,078,566	62,748,055
Mixed origin.....	2,674	109,840	156,061,213	265,928,650	320,210,248	592,220,390
<b>Grand Totals, 1946....</b>	<b>31,249</b>	<b>1,058,156</b>	<b>1,740,687,254</b>	<b>4,358,234,766</b>	<b>3,467,004,980</b>	<b>8,035,692,471</b>
Farm Origin Group—						
From field crops.....	6,326	169,300	251,545,508	992,329,370	653,371,968	1,671,793,471
From animal husbandry..	4,209	132,950	191,925,498	884,474,472	338,393,851	1,235,601,626
<b>Totals, Farm Origin..</b>	<b>10,535</b>	<b>302,250</b>	<b>443,471,006</b>	<b>1,876,803,842</b>	<b>991,765,819</b>	<b>2,907,395,097</b>
Canadian origin.....	9,638	240,961	348,446,141	1,631,721,715	781,589,463	2,442,421,842
Foreign origin.....	897	61,289	95,024,865	245,082,127	210,176,356	464,973,255

Subsection 5.—Manufactures Classified by Type of Organization

For the first time the Dominion Bureau of Statistics has made a study of the type of organization under which Canadian manufacturers operate, and results for 1946 are published in this Subsection.

Of the 30,663 establishments included in this study, 14,581 or 48 p.c. were under individual ownership, 4,920 or 16 p.c. were partnerships, 10,209 or 33 p.c. were incorporated companies and 953 or 3 p.c. were co-operatives.

As is to be expected, smaller establishments, regardless of the type of products manufactured, are carried on under individual ownership. Industries conducted on a small scale contain a large number of establishments in this category, the percentage decreasing as the scale of operations increases, as shown in the following statement:—

<i>Group</i>	<i>Average number of Employees per Establishment</i>	<i>Percentage of Individual Ownership Establishments to the Total</i>
Wood and paper products.....	18.7	58.6
Vegetable products.....	23.1	60.4
Animal products.....	23.2	40.2
Miscellaneous industries.....	30.4	37.3
Chemicals and allied products.....	36.7	21.0
Non-metallic mineral products.....	40.1	32.7
Textiles and textile products.....	53.5	28.0
Iron and its products.....	105.7	25.1
Non-ferrous metal products.....	114.7	22.3
ALL GROUPS.....	34.1	47.6

The establishments operating under individual ownership are not as important from the point of view of employment provided as their large numbers would indicate. According to Tables 16 and 17, these establishments, which comprised 48 p.c. of the total, had only 8 p.c. of the total employees; partnerships accounted for 16 p.c. of the number of establishments and 5 p.c. of the total employees; incorporated companies 33 p.c. of the number of establishments and 86 p.c. of the employees; and co-operatives 3 p.c. of the establishments and 1 p.c. of the employees.

#### 16.—Percentage Distribution of Manufacturing Establishments, Classified by Type of Organization, by Provinces and Industrial Groups, 1946

Province or Group	Individual Ownership	Partnerships	Incorporated Companies	Co-opera- tives	Total
	p.c.	p.c.	p.c.	p.c.	p.c.
<b>Province</b>					
Prince Edward Island.....	58.4	16.3	19.7	5.6	100.0
Nova Scotia.....	59.4	16.4	23.2	1.0	100.0
New Brunswick.....	57.6	11.9	27.9	2.6	100.0
Quebec.....	53.4	13.5	28.2	4.9	100.0
Ontario.....	42.3	16.8	39.3	1.6	100.0
Manitoba.....	42.3	17.2	37.8	2.7	100.0
Saskatchewan.....	56.2	17.8	20.2	5.8	100.0
Alberta.....	50.6	17.6	27.0	4.8	100.0
British Columbia and Yukon.....	35.0	22.3	41.0	1.7	100.0
<b>Industrial Group</b>					
Vegetable products.....	60.4	13.2	24.4	2.0	100.0
Animal products.....	40.2	12.8	27.5	19.5	100.0
Textiles and textile products.....	28.0	21.1	50.3	0.6	100.0
Wood and paper products.....	58.6	18.0	23.1	0.3	100.0
Iron and its products.....	25.1	15.1	59.4	0.4	100.0
Non-ferrous metal products.....	22.3	14.6	63.1	—	100.0
Non-metallic mineral products.....	32.7	16.3	51.0	0.0	100.0
Chemicals and allied products.....	21.0	9.2	69.1	0.7	100.0
Miscellaneous industries.....	37.3	17.0	45.7	—	100.0
<b>Totals.....</b>	<b>47.6</b>	<b>16.0</b>	<b>33.3</b>	<b>3.1</b>	<b>100.0</b>

On the basis of employment provided, incorporated companies are by a very wide margin the most important factor in the employment field, as will be seen from the figures in Table 17.

**17.—Percentage Distribution of Employment in the Manufacturing Industries, Classified by Type of Organization and by Provinces and Industrial Groups, 1946.**

Province or Group	Individual Ownership	Partnerships	Incorporated Companies	Co-opera- tives	Total
Province	p.c.	p.c.	p.c.	p.c.	p.c.
Prince Edward Island.....	29.0	10.4	58.2	2.4	100.0
Nova Scotia.....	13.3	4.6	81.6	0.5	100.0
New Brunswick.....	11.7	4.3	82.4	1.6	100.0
Quebec.....	9.9	5.3	83.9	0.9	100.0
Ontario.....	5.9	4.0	89.6	0.5	100.0
Manitoba.....	6.9	5.4	86.7	1.0	100.0
Saskatchewan.....	13.9	7.1	69.4	9.6	100.0
Alberta.....	11.6	8.2	77.3	2.9	100.0
British Columbia and Yukon.....	6.5	5.1	86.3	2.1	100.0
Industrial Group					
Vegetable products.....	11.8	4.4	82.6	1.2	100.0
Animal products.....	10.5	6.5	76.7	6.3	100.0
Textiles and textile products.....	7.6	8.0	84.2	0.2	100.0
Wood and paper products.....	14.2	6.8	78.3	0.7	100.0
Iron and its products.....	2.3	1.7	95.9	0.1	100.0
Non-ferrous metal products.....	2.0	1.9	96.1	—	100.0
Non-metallic mineral products.....	4.2	3.4	92.4	—	100.0
Chemicals and allied products.....	2.7	1.9	94.7	0.7	100.0
Miscellaneous industries.....	11.8	6.2	82.0	—	100.0
<b>Totals.....</b>	<b>7.9</b>	<b>4.7</b>	<b>86.5</b>	<b>0.9</b>	<b>100.0</b>

**18.—Percentage Distribution of Employment in the Forty Leading Industries, by Type of Organization, 1946<sup>1</sup>**

Industry	Individual Ownership	Partnerships	Incorporated Companies	Co-opera- tives	Total
	p.c.	p.c.	p.c.	p.c.	p.c.
1 Pulp and paper.....	—	—	100.0	—	100.0
2 Slaughtering and meat packing.....	1.4	1.6	94.1	2.9	100.0
3 Non-ferrous smelting and refining.....	—	—	100.0	—	100.0
4 Sawmills.....	33.9	13.6	52.3	0.2	100.0
5 Flour and feed mills.....	16.6	9.2	71.2	3.0	100.0
6 Butter and cheese.....	15.9	5.2	54.5	24.4	100.0
7 Electrical apparatus and supplies.....	0.8	1.2	98.0	—	100.0
8 Petroleum products.....	0.1	—	99.9	—	100.0
9 Automobiles.....	—	—	100.0	—	100.0
10 Clothing, women's factory.....	14.6	15.5	69.9	—	100.0
11 Railway rolling-stock.....	—	—	100.0	—	100.0
12 Rubber goods.....	0.2	0.4	99.4	—	100.0
13 Primary iron and steel.....	—	—	100.0	—	100.0
14 Clothing, men's factory.....	9.3	12.3	78.4	—	100.0
15 Bread and other bakery products.....	33.7	9.4	56.3	0.6	100.0
16 Machinery.....	2.8	0.7	96.3	0.2	100.0
17 Fruit and vegetable preparations.....	8.1	5.0	83.6	3.3	100.0
18 Sheet metal products.....	2.4	2.2	95.0	0.4	100.0
19 Foods, miscellaneous.....	7.5	2.9	89.6	—	100.0
20 Cotton yarn and cloth.....	0.0	0.2	99.8	—	100.0
21 Breweries.....	0.0	0.2	99.8	—	100.0
22 Hosiery and knit goods.....	2.9	4.9	92.2	—	100.0

<sup>1</sup> Information on fish-curing and -packing was not collected for this Table for the year 1943. See Table 19, p. 619.

**18.—Percentage Distribution of Employment in the Forty Leading Industries,  
by Type of Organization, 1946—concluded**

	Industry	Individual Ownership	Partnerships	Incorporated Companies	Co-opera- tives	Total
		p.c.	p.c.	p.c.	p.c.	p.c.
23	Printing and publishing.....	11.1	2.4	85.1	1.4	100.0
24	Boots and shoes, leather.....	10.1	5.1	84.6	0.2	100.0
25	Automobile supplies.....	2.7	0.8	96.3	0.2	100.0
26	Shipbuilding.....	0.9	0.6	98.5	—	100.0
27	Biscuits, confectionery, etc.....	4.5	3.1	92.4	—	100.0
28	Feeds, stock and poultry.....	9.8	5.2	73.7	11.3	100.0
29	Castings, iron.....	5.6	3.0	91.4	—	100.0
30	Tobacco, cigars and cigarettes.....	5.2	0.7	94.1	—	100.0
31	Planing mills, sash and door factories	21.9	11.4	66.3	0.4	100.0
32	Printing and bookbinding.....	17.3	8.9	71.9	1.9	100.0
33	Furniture.....	11.4	10.8	77.7	0.1	100.0
34	Boxes and bags, paper.....	2.1	2.1	95.8	—	100.0
35	Hardware, tools and cutlery.....	2.8	4.7	92.5	—	100.0
36	Brass and copper products.....	5.3	2.7	92.0	—	100.0
37	Distilleries.....	—	—	100.0	—	100.0
38	Medicinal and pharmaceutical prep..	2.4	3.2	91.4	3.0	100.0
39	Silk and artificial silk goods.....	0.4	0.2	99.4	—	100.0
40	Miscellaneous paper products.....	3.5	2.4	94.1	—	100.0

**Subsection 6.—Leading Manufacturing Industries**

In the following statement, the rank of the ten leading industries in 1946, from the standpoint of gross value of production, is compared with their respective ranks in significant years since 1922.

Industry	Rank in—							
	1946	1945	1944	1939	1937	1933	1929	1922
Pulp and paper.....	1	2	5	2	2	1	1	2
Slaughtering and meat packing.....	2	1	1	3	3	3	2	3
Non-ferrous metal smelting and refining...	3	3	2	1	1	2	9	1
Sawmills.....	4	5	11	8	7	14	5	4
Flour and feed mills.....	5	8	12	7	5	4	3	1
Butter and cheese.....	6	9	10	4	6	5	6	5
Electrical apparatus and supplies.....	7	6	8	9	8	16	8	17
Petroleum products.....	8	11	14	6	9	6	10	9
Automobiles.....	9	7	7	5	4	11	4	6
Clothing, women's factory.....	10	16	21	17	16	10	17	16

<sup>1</sup> Did not rank among 40 leading industries in 1922.

A prominent feature of Canadian manufacturing development during the past 20 years has been the rapid growth of non-ferrous metal smelting. This industry, based upon the rich base metal resources of the country, has now taken its place among the leading manufactures along with the industries based upon forest, agricultural and live-stock resources. The incidence of the depression resulted in a rearrangement in the ranking of many industries; in some cases this has proved to be temporary. In 1945, the industries engaged in the production of consumers' goods, by reason of the heightened demand for their products, improved their position. Pulp and paper after a lapse of a number of years resumed its premier position. Another notable feature in 1946 was the advance of petroleum products from eleventh to eighth place, and the reappearance of the women's factory clothing industry in tenth place. Slaughtering and meat packing dropped from first to second place and automobiles from seventh to ninth place.



## 19.—Principal Statistics of the Forty Leading Industries, Ranked according to Gross Value of Products, 1916

Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
1 Pulp and paper.....	113	44,967	101,364,636	223,448,338	258,164,578	527,814,916
2 Slaughtering and meat packing.....	147	22,536	40,313,025	408,033,456	64,868,839	475,953,154
3 Non-ferrous metal smelting and refining.....	15	14,546	30,648,361	212,865,030	69,565,922	304,718,524
4 Sawmills.....	6,001	49,352	63,811,260	156,107,527	129,408,392	287,910,057
5 Flour and feed mills.....	974	8,036	12,898,160	224,233,698	34,191,280	260,659,451
6 Butter and cheese.....	2,161	19,659	28,668,241	177,638,517	52,761,041	234,664,461
7 Electrical apparatus and supplies.....	266	43,998	74,510,479	101,939,272	129,968,926	234,572,653
8 Petroleum products.....	43	7,145	14,849,141	155,818,744	57,447,611	223,425,383
9 Automobiles.....	9	21,647	43,968,772	135,556,183	55,914,441	193,439,688
10 Clothing, women's factory.....	1,108	29,963	44,985,178	91,138,141	82,818,768	174,353,223
11 Railway rolling-stock.....	37	28,553	57,815,845	83,937,365	74,655,059	162,159,521
12 Rubber goods.....	60	22,055	37,813,363	62,135,578	93,451,248	159,408,113
13 Primary iron and steel.....	59	24,196	50,515,897	68,468,433	71,582,060	153,082,616
14 Clothing, men's factory.....	537	27,822	38,114,832	83,033,566	69,220,286	152,706,971
15 Bread and other bakery products.....	2,864	30,453	42,987,201	70,886,539	72,980,744	148,362,528
16 Machinery.....	299	27,003	50,246,824	50,760,795	93,031,472	145,638,248
17 Fruit and vegetable preparations.....	513	16,373	19,168,778	83,434,146	50,680,350	136,004,138
18 Sheet metal products.....	230	16,858	27,574,283	62,991,981	51,288,120	115,699,555
19 Miscellaneous foods, coffee, tea, etc.....	286	6,893	9,758,181	78,782,164	30,670,894	110,051,938
20 Cotton yarn and cloth.....	41	20,662	29,090,343	62,495,630	44,473,067	109,828,450
21 Breweries.....	61	8,644	17,743,749	23,416,499	84,270,490	109,299,587
22 Hosiery and knit goods.....	247	24,941	30,210,507	47,270,879	56,681,420	105,208,699
23 Printing and publishing.....	775	21,462	39,846,308	24,578,088	78,689,074	104,305,064
24 Fish curing and packing.....	586	11,327	13,799,809	68,012,828	31,084,771	100,201,291
25 Boots and shoes, leather.....	294	22,334	29,023,596	52,340,814	43,612,601	96,435,251
26 Automobile supplies.....	124	15,348	27,808,618	43,519,483	48,250,348	93,428,899
27 Shipbuilding.....	79	20,246	40,975,731	25,915,348	64,635,796	91,851,460
28 Biscuits, confectionery, cocoa, etc.....	237	13,043	16,651,490	43,982,673	41,581,245	86,714,459
29 Feeds, stock and poultry.....	235	3,971	6,408,326	68,649,226	14,207,938	83,594,177
30 Castings, iron.....	219	16,925	31,381,935	27,446,850	52,484,740	82,278,070
31 Tobacco, cigars and cigarettes.....	78	9,532	12,711,360	45,455,773	36,048,133	81,799,967
32 Planing mills, sash and door factories.....	1,078	14,012	19,628,779	47,501,520	31,424,769	79,920,764
33 Printing and bookbinding.....	1,406	19,376	30,219,639	29,038,267	48,873,014	78,647,105
34 Furniture.....	824	19,217	28,213,893	34,719,631	42,546,832	78,241,125
35 Boxes and bags, paper.....	160	11,975	16,476,657	41,169,182	32,759,600	74,500,862
36 Hardware, tools and cutlery.....	276	15,868	27,259,296	22,823,598	48,915,105	73,059,549
37 Brass and copper products.....	162	10,252	18,425,724	39,983,930	30,874,312	72,056,922
38 Distilleries.....	18	4,075	7,122,533	21,437,733	44,326,434	67,119,358
39 Medicinal and pharmaceutical preparations.....	201	7,670	12,832,173	23,163,222	43,446,027	67,049,834
40 Silk and artificial silk goods.....	36	13,100	18,890,121	24,099,473	39,550,662	65,521,067
<b>Totals, Leading Industries.....</b>	<b>22,859</b>	<b>766,035</b>	<b>1,261,733,044</b>	<b>3,348,230,120</b>	<b>2,501,306,423</b>	<b>6,001,687,095</b>
<b>Totals, All Industries.....</b>	<b>31,249</b>	<b>1,058,156</b>	<b>1,740,687,254</b>	<b>4,358,234,766</b>	<b>3,467,004,986</b>	<b>8,035,692,471</b>
Percentage of leading industries to all industries.....	73.2	72.4	72.7	76.8	72.2	74.7
Primary Textiles <sup>1</sup> .....	735	84,030	112,999,701	213,024,628	206,218,026	627,940,062

<sup>1</sup>On a broader classification basis, the primary textile industry, which includes the production of cottons, woollens, silk, hosiery and knit goods, and the dyeing and finishing of textiles, ranks first in number of employees, salaries and wages paid and gross value of production.

**20.—Principal Statistics of the Forty Leading Industries, Ranked according to Gross Value of Products, 1947**

	Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Value of Products	
		No.	No.	\$	\$	Net	Gross
						\$	\$
1	Pulp and paper.....	115	49,946	129,477,995	295,444,332	356,084,900	706,971,628
2	Slaughtering and meat packing.....	151	21,726	44,611,145	406,694,207	77,054,061	486,916,554
3	Non-ferrous metal smelting and refining.....	16	17,449	40,767,871	308,267,931	115,798,652	453,033,942
4	Sawmills.....	6,481	55,425	83,360,452	208,543,819	190,514,978	402,133,298
5	Electrical apparatus and supplies.....	296	52,736	103,891,016	162,131,266	200,859,040	366,506,203
6	Automobiles.....	9	23,837	58,407,977	226,845,132	111,740,607	340,918,195
7	Flour and feed mills.....	961	8,285	14,832,059	280,674,476	41,020,372	324,152,457
8	Butter and cheese.....	2,037	20,757	32,405,745	238,667,589	66,025,020	309,727,758
9	Petroleum products.....	46	7,760	17,877,820	217,516,071	58,325,652	288,500,286
10	Primary iron and steel.....	58	26,933	60,285,368	104,532,334	92,879,888	216,275,618
11	Machinery.....	322	29,920	61,969,692	74,101,757	124,576,615	200,894,754
12	Rubber goods.....	60	23,475	46,613,893	82,934,625	110,673,007	196,307,734
13	Clothing, women's factory.....	1,169	30,969	50,357,121	92,713,574	91,158,213	184,305,430
14	Clothing, men's factory.....	566	29,817	45,486,784	98,082,593	84,575,371	183,166,033
15	Bread and other bakery products.....	2,942	31,501	47,896,265	80,084,523	80,476,461	165,749,588
16	Railway rolling-stock.....	37	28,526	61,754,235	73,076,408	82,389,093	159,283,149
17	Cotton yarn and cloth.....	45	24,089	35,444,413	99,599,159	55,460,989	158,272,431
18	Fruit and vegetable preparations.....	502	17,036	22,199,466	89,332,550	61,349,705	152,712,901
19	Automobile supplies.....	128	17,487	36,559,864	65,430,940	64,028,974	131,534,939
20	Sheet metal products.....	253	17,637	33,261,819	68,591,605	59,254,654	129,494,950
21	Hosiery and knit goods.....	262	26,511	35,646,663	59,557,427	66,851,127	127,837,570
22	Miscellaneous food industries.....	303	7,005	11,153,337	94,412,054	32,332,238	127,439,940
23	Furniture.....	1,046	24,781	41,277,665	59,277,186	65,490,308	126,198,873
24	Printing and publishing.....	771	23,105	46,990,709	34,113,405	90,280,426	125,571,639
25	Feeds, stock and poultry.....	285	4,436	7,901,202	100,384,042	19,235,753	120,553,040
26	Breweries.....	61	9,378	21,067,092	25,871,001	86,800,811	114,546,810
27	Shipbuilding.....	74	21,119	46,457,707	37,263,603	71,213,925	110,313,129
28	Fish curing and packing.....	594	12,043	15,860,682	62,780,333	41,081,688	105,272,682
29	Boots and shoes, leather.....	295	21,433	30,039,570	57,444,765	46,201,865	104,147,182
30	Castings, iron.....	216	18,167	38,201,506	36,201,211	63,687,150	102,515,842
31	Planing mills, sash and door factories.....	1,246	15,874	24,261,579	57,184,102	39,071,060	97,499,464
32	Brass and copper products.....	161	10,417	21,227,616	60,387,706	34,595,129	96,549,840
33	Tobacco, chewing, smoking and snuff.....	75	9,371	14,032,054	48,785,199	43,185,902	92,278,522
34	Printing and bookbinding.....	1,460	20,374	35,305,718	33,596,332	57,432,081	91,869,368
35	Boxes and bags, paper.....	165	12,227	19,390,377	53,059,806	37,889,859	91,641,607
36	Agricultural implements.....	61	16,013	31,244,006	49,799,417	38,162,131	89,423,469
37	Synthetic textiles and silk.....	40	14,728	24,284,463	32,659,919	49,809,478	84,869,922
38	Sugar refineries.....	11	3,003	6,309,481	63,883,259	14,204,767	80,194,369
39	Paper goods, miscellaneous.....	196	8,327	14,009,906	45,510,706	33,921,609	80,106,905
40	Hardware, tools and cutlery.....	288	14,934	28,904,293	25,033,959	53,028,657	79,536,832
<b>Totals, Forty Leading Industries.....</b>		<b>23,804</b>	<b>828,557</b>	<b>1,541,026,626</b>	<b>4,310,470,323</b>	<b>3,108,722,216</b>	<b>7,605,042,853</b>
<b>Totals, All Industries.....</b>		<b>32,734</b>	<b>1,131,750</b>	<b>2,085,925,966</b>	<b>5,534,350,019</b>	<b>4,292,055,802</b>	<b>10,081,026,580</b>
Percentage of leading industries to all industries.....		72.7	73.2	73.9	77.9	72.4	75.4

## Section 4.—Principal Factors in Manufacturing Production

The subjects treated under this Section include salaries and wages and size of establishments.

### Subsection 1.—Capital Employed

The collection of statistics on capital invested in manufacturing industries was discontinued in 1944. However, figures for each year from 1917 to 1947 are given in Table 1 of this Chapter, and by provinces for significant years of the same period in Table 2. A table showing the forms of capital employed for certain years from 1924 to 1943 is given at p. 417 of the 1946 Year Book.

## Subsection 2.—Employment in Manufactures

Statistics of earnings and hours of work of wage-earners and salaried employees in manufacturing will be found in the Chapter on Labour, pp. 687-692.

## Subsection 3.—Salaries and Wages in Manufacturing Industries

In 1946 the 31,249 establishments covered employed 181,006 salaried employees and 877,150 wage-earners, a total of 1,058,156 persons. Out of every 1,000 persons employed in manufacturing, 171 were classed as salary-earners and 829 as wage-earners; the former earned 24 p.c. and the latter 76 p.c. of the total amount paid out as remuneration for services.

A notable feature during the past few years was the reduction in the disparity between average annual salaries and wages. Whereas in 1939 average annual wages were only 56 p.c. of average annual salaries, in 1943 the percentage rose to 76 and declined to 67 in 1946. This tendency towards equalization was, in part, due to the controls adopted by the Government during the war years which tended to stabilize salaries more than wages. The increase in average wages was also influenced by the fact that large numbers of wage-earners were employed in the highly paid iron and steel industries and by the increase in number of hours worked, some of which were at overtime rates of pay.

## 21.—Salaries and Wages Paid in Manufacturing Industries, Significant Years, 1917-46

Year	Salaries				Wages			
	Salaried Employees		Total Salaries	Average Salaries	Wage-Earners		Total Wages	Average Wages
	Male	Female			Male	Female		
	No.	No.	\$	\$	No.	No.	\$	\$
1917.....	64,918		85,353,667	1,315	541,605		412,448,177	762
1920.....	78,334		141,837,361	1,811	520,559		575,656,515	1,106
1922.....	71,586		129,836,831	1,814	384,670		359,560,399	935
1924.....	54,379	15,641	130,344,822	1,857	322,719	94,871	404,122,853	968
1926 <sup>1</sup> .....	58,245	17,092	142,353,900	1,890	374,244	109,580	483,328,342	999
1929 <sup>1</sup> .....	67,731	21,110	175,553,710	1,976	454,768	122,922	601,737,507	1,042
1930 <sup>1</sup> .....	64,161	20,550	169,992,216	2,007	416,790	113,195	527,563,162	995
1931 <sup>1</sup> .....	71,198	20,293	172,289,095	1,883	337,636	99,513	415,277,895	950
1932.....	68,264	18,786	151,355,790	1,739	288,817	92,966	322,245,926	844
1933.....	67,875	18,761	139,317,946	1,608	287,266	94,756	296,929,878	777
1934.....	71,963	20,132	148,760,126	1,615	326,598	101,119	355,090,929	830
1935.....	76,213	21,717	160,455,080	1,638	353,790	104,944	399,012,697	870
1936.....	81,409	23,008	173,198,057	1,659	379,977	109,965	438,873,377	896
1937.....	91,092	24,735	195,983,475	1,692	427,285	117,339	525,743,562	965
1938.....	95,270	25,319	207,386,381	1,719	409,172	112,255	498,282,208	956
1939.....	98,165	26,607	217,839,334	1,746	415,488	117,854	519,971,819	975
1940.....	104,267	31,493	241,599,761	1,780	491,439	135,045	679,273,104	1,084
1941.....	117,251	41,693	286,336,861	1,801	626,825	175,409	978,525,782	1,220
1942.....	123,125	54,062	334,370,793	1,890	732,319	242,555	1,347,934,049	1,383
1943.....	128,679	64,516	388,857,505	2,013	762,854	285,019	1,598,434,879	1,525
1944.....	126,858	65,700	418,065,594	2,171	744,635	285,689	1,611,555,776	1,564
1945.....	128,601	62,106	417,857,619	2,191	680,620	248,045	1,427,915,830	1,538
1946.....	127,002	54,004	410,875,776	2,270	662,699	214,451	1,329,811,478	1,516

<sup>1</sup>The averages of wage-earners and earnings for the years 1931 to 1945 are strictly comparable with those for the years up to 1925 but not with those for the intervening years. The figures for the latest years—as for the earliest—represent the earnings for complete man-years of work, with no allowance for periods of unemployment. The difference amounts to only 3 or 4 p.c. in the total figures and affects chiefly the seasonal industries.

<sup>2</sup>The increase in the number of salaried employees in 1931 is due to the following changes in method: (1) Prior to 1931 working proprietors, such as bakers, sawmill operators, small clothing manufacturers, etc., were required to report themselves as wage-earners. In 1931 and subsequent years, however, all such proprietors reported themselves as salaried employees. (2) In 1931 travelling salesmen who were attached to the plant, and devoted all or the greater part of their time to selling the products of that plant, were included with salaried employees. Prior to this they were not reported at all.



Ontario has a larger proportion of females among its salaried employees than the other provinces. The same situation prevails in Quebec with regard to wage-earners, due, no doubt, to the textile industries of the Province. The importance of the textile industries in providing employment for females is strikingly illustrated by the fact that of all female wage-earners engaged in the manufacturing industries of Canada in 1946, 40 p.c. were found in the textile group.

The average salary in 1946 amounted to \$2,270 which was \$524 or 30 p.c. higher than in 1939. Employees in Ontario received the highest average salary at \$2,356. Quebec was second at \$2,297, British Columbia third at \$2,200 and Manitoba fourth at \$2,090. The fact that head offices of many large corporations are located at Montreal, Toronto, Winnipeg and Vancouver tends to raise the average salaries in the provinces in which these cities are located.

The average wage in 1946 amounted to \$1,516 which was \$541 or 55 p.c. higher than in 1939. The manufacturing industries of British Columbia paid the highest average wage of \$1,750, followed by Ontario with \$1,552, Manitoba \$1,491, Alberta \$1,477, Saskatchewan \$1,455, Quebec \$1,445, etc. The high figures shown for Yukon and Northwest Territories in regard to average wages are due to the unusual conditions under which industry is carried on in these regions and are not representative. Statistics of the distribution of employees by provinces and groups as well as average annual earnings are given in Table 22.

## 22.—Salaries and Wages Paid in Manufacturing Industries, by Provinces and Industrial Groups, 1946

Province or Territory and Industrial Group	Salaries				Wages			
	Salaried Employees		Total Salaries	Average Salaries	Wage-Earners		Total Wages	Average Wages
	Male	Female			Male	Female		
Province	No.	No.	\$	\$	No.	No.	\$	\$
Prince Edward Island.....	300	76	394,735	1,050	908	471	1,256,734	911
Nova Scotia.....	2,971	905	6,931,360	1,788	22,193	3,655	36,128,899	1,398
New Brunswick.....	2,390	791	5,978,530	1,879	15,947	3,604	27,173,389	1,390
Quebec.....	42,251	16,180	134,254,799	2,297	211,169	87,676	431,731,306	1,445
Ontario.....	59,899	29,558	210,784,299	2,356	310,972	97,691	634,432,248	1,552
Manitoba.....	4,634	1,746	13,335,733	2,090	24,300	7,687	47,682,612	1,491
Saskatchewan.....	2,100	723	4,668,247	1,654	7,803	1,331	13,288,070	1,455
Alberta.....	3,343	1,116	8,079,023	1,812	14,995	3,195	26,860,065	1,477
British Columbia.....	9,097	2,906	26,410,403	2,200	54,351	9,130	111,096,242	1,750
Yukon and Northwest Territories.....	17	3	38,647	1,932	61	11	161,913	2,249
<b>Totals, 1946</b> .....	<b>127,002</b>	<b>54,004</b>	<b>410,875,776</b>	<b>2,270</b>	<b>662,699</b>	<b>214,451</b>	<b>1,329,811,478</b>	<b>1,516</b>
Industrial Group								
Vegetable products.....	17,619	7,416	54,503,739	2,177	75,225	36,910	152,389,942	1,359
Animal products.....	13,015	4,917	35,096,105	1,957	60,736	24,176	116,421,732	1,371
Textiles and textile products	12,316	7,489	52,363,705	2,644	58,904	86,025	175,654,618	1,212
Wood and paper products..	32,593	10,875	87,385,351	2,010	157,119	23,531	278,664,211	1,543
Iron and its products.....	26,923	11,247	95,171,196	2,493	199,762	11,347	380,641,787	1,803
Non-ferrous metal products	11,297	5,485	40,196,279	2,395	51,754	16,317	110,169,899	1,618
Non-metallic mineral products.....	4,347	1,459	13,086,515	2,254	28,119	2,568	50,762,125	1,654
Chemicals and allied products.....	6,373	3,728	24,072,730	2,383	20,077	7,100	42,465,802	1,563
Miscellaneous industries...	2,519	1,385	9,000,156	2,305	11,003	6,474	22,641,362	1,295

**Annual Earnings in the Forty Leading Industries.**—In only two industries, breweries and pulp and paper, were average salaries above \$3,000. In fourteen others they ranged between \$2,500 and \$3,000. These industries, in descending order, were: automobiles, primary iron and steel, non-ferrous metal smelting and refining, silk and artificial silk, petroleum products, woollen cloth, men's factory



clothing, women's factory clothing, shipbuilding and repairs, railway rolling-stock, cotton yarn and cloth, brass and copper products, boxes and bags, paper, and automobile supplies. In sixteen others they ranged between \$2,000 and \$2,500, while in the remaining eight they were below \$2,000. The sawmill and butter and cheese industries, with \$974 and \$1,363, respectively, were the lowest paying industries in this category.

The highest annual wages, those above \$1,800, were paid in nine industries, in all of which the proportion of skilled workers was high and the proportion of female workers low. The pulp and paper industry with \$2,113 was the highest in this group, followed by aircraft with \$2,015, primary iron and steel \$1,998, non-ferrous metal smelting and refining \$1,980, railway rolling-stock \$1,979, shipbuilding \$1,957, petroleum products \$1,937, automobiles \$1,814 and breweries \$1,814. In thirteen other industries average wages ranged between \$1,500 and \$1,800, in eleven others they were \$1,200 to \$1,500, while in the remaining seven they were below \$1,200. This latter group included industries made up of a large number of small establishments and in which the proportion of female workers was high including: paper boxes and bags, fish-curing and -packing, leather boots and shoes, men's factory clothing, biscuits and confectionery, hosiery and knit goods, and fruit and vegetable preparations.

**23.—Salaries and Wages Paid in the Forty Leading Industries, 1946, with comparative figures of Average Salaries and Wages Paid in 1945**

NOTE.—Industries are ranked according to the aggregate salaries and wages paid.

Industry	Salaries					Wages				
	Salaried Employees		Total Salaries	Average Salaries		Wage-Earners		Total Wages	Average Wages	
	Male	Female		1946	1945	Male	Female		1946	1945
	No.	No.		\$	\$	No.	No.		\$	\$
1 Pulp and paper.....	5,245	1,665	20,959,990	3,033	2,803	37,262	795	80,404,646	2,113	1,873
2 Electrical apparatus and supplies.....	6,615	3,483	22,888,463	2,267	2,270	22,555	11,345	51,622,016	1,523	1,576
3 Sawmills.....	8,019	547	8,343,488	974	963	40,037	749	55,467,772	1,360	1,280
4 Railway rolling-stock..	1,772	274	5,352,124	2,616	2,515	26,386	121	52,463,721	1,979	1,986
5 Primary iron and steel..	1,814	815	7,413,359	2,820	2,669	21,373	194	43,102,538	1,998	1,907
6 Machinery.....	4,231	1,971	14,369,671	2,316	2,140	19,824	977	35,877,153	1,725	1,693
7 Clothing, women's factory.....	2,819	1,821	12,440,867	2,681	2,544	5,637	19,686	32,544,311	1,285	1,199
8 Automobiles.....	2,332	995	9,404,030	2,827	2,762	18,189	131	34,564,742	1,887	2,365
9 Bread and other bakery products....	3,618	1,228	8,169,704	1,686	1,547	18,694	6,913	34,817,497	1,360	1,275
10 Shipbuilding and repairs.....	1,430	498	5,120,743	2,656	2,310	18,141	177	35,854,988	1,957	2,046
11 Slaughtering and meat-packing.....	3,047	1,171	9,630,818	2,283	2,123	14,983	3,335	30,682,207	1,675	1,630
12 Printing and publishing	6,543	3,492	19,567,211	1,950	1,896	9,473	1,954	20,279,097	1,775	1,705
13 Clothing, men's factory	2,505	1,328	10,300,478	2,687	2,681	7,068	16,921	27,814,354	1,159	1,137
14 Rubber goods, incl. rubber footwear....	3,038	1,464	10,306,594	2,289	2,173	12,739	4,814	27,506,769	1,567	1,558
15 Castings, iron.....	1,292	564	4,575,279	2,465	2,403	14,693	376	26,806,656	1,779	1,800
16 Non-ferrous metal smelting and refining	1,800	438	6,277,577	2,805	2,478	12,239	69	24,370,784	1,980	1,928
17 Printing and book-binding.....	3,129	1,349	9,350,083	2,088	2,031	9,842	5,056	20,869,556	1,400	1,322
18 Hosiery and knit goods	1,353	1,029	5,852,571	2,457	2,301	7,444	15,115	24,357,936	1,080	1,002
19 Cotton yarn and cloth..	798	533	3,472,978	2,609	2,396	11,610	7,721	25,617,365	1,325	1,223
20 Boots and shoes, leather.....	1,775	755	5,927,432	2,343	2,346	11,178	8,626	23,096,164	1,166	1,077
21 Butter and cheese.....	3,809	1,539	7,288,689	1,363	1,280	13,022	1,289	21,379,552	1,494	1,424
22 Furniture.....	1,999	644	5,582,581	2,112	2,072	15,168	1,406	22,631,312	1,365	1,281
23 Automobile supplies...	1,617	793	6,056,425	2,513	2,444	11,058	1,880	21,752,193	1,681	1,817
Sheet metal products..	1,809	834	5,962,177	2,256	2,223	11,654	2,561	21,612,106	1,520	1,513
Hardware, tools and cutlery.....	1,540	948	6,010,312	2,416	2,421	10,784	2,596	21,248,984	1,588	1,627

**23.—Salaries and Wages Paid in the Forty Leading Industries, 1946, with comparative figures of Average Salaries and Wages Paid in 1945—concluded**

Industry	Salaries					Wages				
	Salaried Employees		Total Salaries	Average Salaries		Wage-Earners		Total Wages	Average Wages	
	Male	Female		1946	1945	Male	Female		1946	1945
	No.	No.	\$	\$	\$	No.	No.	\$	\$	\$
26 Agricultural imple- ments.....	1,611	707	5,436,844	2,345	2,104	11,304	244	20,038,264	1,735	1,739
27 Aircraft.....	2,322	925	8,019,265	2,470	2,282	7,809	349	16,439,820	2,015	2,211
28 Planing mills, sash and door factories.....	1,959	424	4,072,002	1,709	1,690	11,409	220	15,556,777	1,338	1,253
29 Fruit and vegetable preparations.....	1,439	759	4,126,509	1,877	1,815	7,521	6,654	15,042,269	1,061	1,001
30 Silk and artificial silk.	872	523	3,782,939	2,712	2,558	7,474	4,231	15,107,182	1,291	1,212
31 Brass and copper products.....	1,160	596	4,572,900	2,604	2,567	7,151	1,345	13,852,824	1,630	1,829
32 Breweries.....	1,233	319	4,880,558	3,145	2,935	6,798	204	12,863,191	1,814	1,787
33 Biscuits, confectionery, cocoa, etc.....	1,266	685	4,581,029	2,348	2,284	4,677	6,415	12,070,461	1,088	1,013
34 Boxes and bags, paper.	1,020	596	4,169,569	2,580	2,486	5,159	5,200	12,307,088	1,188	1,111
35 Petroleum products....	1,091	225	3,558,771	2,704	2,619	5,749	80	11,290,370	1,937	1,918
36 Fish curing and packing	1,166	232	2,156,716	1,543	1,577	7,183	2,746	11,643,093	1,173	1,039
37 Woollen cloth.....	573	348	2,484,855	2,698	2,711	4,935	4,057	11,182,029	1,243	1,189
38 Heating and cooking apparatus.....	688	376	2,509,805	2,359	2,060	6,478	283	10,517,799	1,556	1,603
39 Flour and feed mills....	1,684	467	3,804,180	1,769	1,636	5,604	281	9,093,980	1,545	1,456
40 Medicinal and pharma- ceutical preparations.	1,410	1,192	6,412,825	2,465	2,194	2,314	2,754	6,419,348	1,267	1,157
<b>Totals, Forty Lead- ing Industries....</b>	<b>93,443</b>	<b>38,552</b>	<b>295,192,411</b>	<b>2,236</b>	<b>2,178<sup>1</sup></b>	<b>502,618</b>	<b>149,960</b>	<b>1,010,168,914</b>	<b>1,548</b>	<b>1,603<sup>1</sup></b>
<b>Grand Totals, All Industries.....</b>	<b>127,002</b>	<b>54,004</b>	<b>410,875,776</b>	<b>2,270</b>	<b>2,191</b>	<b>662,699</b>	<b>214,451</b>	<b>1,329,811,478</b>	<b>1,516</b>	<b>1,538</b>

<sup>1</sup> Average salaries and wages paid in the forty leading industries in 1945. The list of leading industries in that year was not quite the same as the list for 1946.

**Average Annual, Weekly and Hourly Earnings.**—In comparing earnings by provinces or groups, consideration should be given to the type of industries in each case since the distribution of industries has very definitely a regional significance. In some industries a labour force possessing deftness and speed or the ability to exercise muscular strength is necessary, in others the labour force must exercise craftsmanship or possess a high degree of technical knowledge. Workers in these latter industries naturally command relatively higher wages than those employed in industries whose employees are routine workers. The ranking of provinces and industries as regards annual earnings is, in many cases, different from that of weekly or hourly earnings since the factors of number of weeks worked per year and number of hours worked per week are taken into consideration.

The figures for the years 1938 to 1945 given in Table 24 are based on an analysis of a pay-list covering one week in the month of highest employment. For this reason the figures do not refer to any particular month, since the month of highest employment might be May for one firm and October for another; they represent the summation of the different months of highest employment as reported by all the firms. For a particular industry, however, the month of highest employment is more significant as in such case it coincides for a great number of firms engaged in the same industry. The figures for 1946 in Tables 24 to 26 are based on returns received from establishments employing 15 hands or over and refer to the last week in the month of November.

Average weekly earnings of male wage-earners for manufacturing as a whole amounted to \$36.23 in 1946, an increase of \$14.00 or 63 p.c. as compared with 1939. Average hourly earnings advanced from 46.2 cents in 1939 to 80.7 cents in 1946, an increase of 74 p.c. Annual earnings at \$1,702 were 58 p.c. higher.

Female wage-earners received on an average \$20.08 per week in 1946, an increase of \$7.30 or 57 p.c. as compared with 1939. Hourly earnings at 50.2 cents were 77 p.c. higher, while annual earnings at \$943 were 52 p.c. higher.

#### 24.—Average Annual, Weekly and Hourly Earnings of Male and Female Wage-Earners in the Manufacturing Industries, 1938-46

NOTE.—Butter and cheese factories and fish-curing and -packing plants are excluded in the years 1938 to 1945, while sawmills are also excluded in 1945.

Item and Year	Annual	Weekly	Hourly	Hours Worked per Week
	\$	\$	\$	No.
<b>Male—</b>				
1938.....	1,055	21.49	0.454	47.3
1939.....	1,076	22.23	0.462	48.1
1940.....	1,202	24.83	0.488	50.9
1941.....	1,355	27.72	0.538	51.5
1942.....	1,558	31.75	0.619	51.3
1943.....	1,726	33.80	0.671	50.4
1944.....	1,761	34.95	0.712	49.1
1945.....	1,739	35.04	0.736	47.6
1946 <sup>1</sup> .....	1,702	36.23	0.807	44.9
<b>Female—</b>				
1938.....	594	12.10	0.271	44.6
1939.....	619	12.78	0.283	45.2
1940.....	655	13.52	0.286	47.3
1941.....	736	15.05	0.316	47.6
1942.....	854	17.41	0.371	46.9
1943.....	987	19.33	0.431	44.8
1944.....	1,051	20.89	0.479	43.6
1945.....	984	19.84	0.465	42.7
1946 <sup>1</sup> .....	943	20.08	0.502	40.0
<b>All Wage-Earners—</b>				
1938.....	956	19.49	0.417	46.7
1939.....	975	20.14	0.427	47.2
1940.....	1,084	22.35	0.446	50.1
1941.....	1,220	24.95	0.494	50.5
1942.....	1,383	28.18	0.561	50.2
1943.....	1,525	29.87	0.612	48.8
1944.....	1,564	31.05	0.654	47.5
1945.....	1,538	30.98	0.669	46.3
1946 <sup>1</sup> .....	1,516	32.38	0.741	43.7

<sup>1</sup> Based on weekly earnings and hours worked in the last week of November by establishments employing 15 hands or over (see p. 624).

#### 25.—Average Annual, Weekly and Hourly Earnings of All Wage-Earners in the Manufacturing Industries, by Provinces and Territories, 1946

Province or Territory	Average Annual Earnings	Average Weekly Earnings	Average Hourly Earnings	Hours Worked per Week
	\$	\$	cents	No.
Prince Edward Island.....	911	21.51	46.2	46.3
Nova Scotia.....	1,398	31.44	68.8	45.7
New Brunswick.....	1,390	30.54	66.4	46.0
Quebec.....	1,445	30.51	67.2	45.4
Ontario.....	1,552	33.26	77.7	42.8
Manitoba.....	1,491	31.16	72.8	42.8
Saskatchewan.....	1,455	32.78	74.5	44.0
Alberta.....	1,477	32.40	75.0	43.2
British Columbia.....	1,750	36.83	89.4	41.2
Yukon and Northwest Territories.....	2,249	..	..	..



**26.—Average Annual, Weekly and Hourly Earnings of All Wage-Earners in the Manufacturing Industries, by Industrial Groups, 1946**

Industrial Group	Average Annual Earnings	Average Weekly Earnings	Average Hourly Earnings	Hours Worked per Week
	\$	\$	cents	No.
Vegetable products.....	1,359	29.34	65.9	44.0
Animal products.....	1,371	28.97	66.2	43.4
Textiles and textile products.....	1,212	24.75	58.6	42.2
Wood and paper products.....	1,543	33.68	74.8	44.8
Iron and its products.....	1,803	38.11	87.2	43.7
Non-ferrous metal products.....	1,618	35.51	80.7	44.0
Non-metallic mineral products.....	1,654	33.84	75.5	44.7
Chemicals and allied products.....	1,563	32.46	73.1	44.4
Miscellaneous industries.....	1,295	26.69	62.0	42.8

**Real Earnings of Employees.**—When the index number representing the average yearly wages is divided by the index number of the cost of living, on the same base, a measure of “real” wages is obtained. Index numbers for 1937 to 1946 are given in Table 27. In 1933, the lowest point of the depression, real wages were 88.3 on the 1935-39 base. From then they rose steadily and stood at 141.1 in 1944, an increase of about 60 p.c. In 1946 real wages dropped to 131.6.

**27.—Average Yearly Earnings and Index Numbers of Earnings, Cost of Living and Real Wages of Wage-Earners in Manufacturing Industries, 1937-46**

NOTE.—Figures for 1931-36 are given at p. 581 of the 1948-49 Year Book.

Year	Wages Paid	Average Wage-Earners	Average Yearly Earnings	Index Numbers (1935-39=100)		
				Average Yearly Earnings	Cost of Living	Real Value of Average Yearly Earnings
	\$	No.	\$			
1937.....	525,743,562	544,624	965	103.5	101.2	102.3
1938.....	498,282,208	521,427	956	102.6	102.2	100.4
1939.....	519,971,819	533,342	975	104.6	101.5	103.1
1940.....	679,273,104	626,484	1,084	116.3	105.6	110.1
1941.....	978,525,782	802,234	1,220	130.9	111.7	117.2
1942.....	1,347,934,049	974,904	1,383	148.4	117.0	126.8
1943.....	1,598,434,879	1,047,873	1,525	163.6	118.4	138.2
1944.....	1,611,555,776	1,030,324	1,564	167.8	118.9	141.1
1945.....	1,427,915,830	928,665	1,538	165.0	119.5	138.1
1946.....	1,329,811,478	877,150	1,516	162.7	123.6	131.6

**Percentages of Salaries and Wages to Net Value of Products.**—Table 28 shows the relation between salaries and wages paid by manufacturers and the total net value of production. Figures of gross production are often used in such calculations, but the values out of which the wages of employees must come in the long run are the values added to the raw materials while they are in the factory. Such added values constitute the real production of the manufacturing plant and are alone available for payment of salaries and wages, interest, rent, taxes, repairs, and all other overhead charges that ordinarily must be met. The percentage declined steadily with the increasing manufacturing production from 1924 to 1929, while from 1931 to 1935 and again in 1938 and 1939, due to decreased industrial activity, the percentage of salaries to value added was above normal. It should be borne in mind, however, that salaried employees increased 159 p.c. during the period 1924-46



while wage-earners increased 110 p.c. The percentage of wages has fluctuated much less than that of salaries. The number of wage-earning employees may be more rapidly adjusted to the activity of the industry and wage levels likewise may be more readily adjusted to the price levels of the products. Of the increase in the net value of production since 1939 amounting to \$1,935,953,079, 52 p.c. was passed along in increased salaries and wages.

**28.—Percentages of Salaries and Wages Paid to the Net Values of Manufacturing Production, 1937-46**

Year	Value Added by Processes of Manufacture <sup>1</sup>	Salaries Paid	Wages Paid	Percentages—		
				of Salaries to Value Added	of Wages to Value Added	of Total Salaries and Wages to Value Added
	\$	\$	\$	p.c.	p.c.	p.c.
1937.....	1,508,924,867	195,983,475	525,743,562	13.0	34.8	47.8
1938.....	1,428,286,778	207,386,381	498,282,208	14.5	34.9	49.4
1939.....	1,531,051,901	217,839,334	519,971,819	14.2	34.0	48.2
1940.....	1,942,471,238	241,599,761	679,273,104	12.0	35.0	47.0
1941.....	2,605,119,788	286,336,861	978,525,782	11.0	37.6	48.6
1942.....	3,309,973,758	334,870,793	1,347,934,049	10.1	40.7	50.8
1943.....	3,816,413,541	388,857,505	1,598,434,879	10.2	42.0	52.2
1944.....	4,015,776,010	418,065,594	1,611,555,776	10.4	40.2	50.6
1945.....	3,564,315,899	417,857,619	1,427,915,830	11.7	40.1	51.8
1946.....	3,467,004,980	410,875,776	1,329,811,478	11.8	38.4	50.2

<sup>1</sup> Equivalent to "net value of products"; see footnote 1, Table 1, p. 592.

**Subsection 4.—Size of Manufacturing Establishments**

The size of the manufacturing establishment is generally measured either by the value of product, or by the number of employees, but each of these methods has its limitations. The latter takes no account of the differences in capital equipment at different times or in various industries and obviously the increased use of machinery, as in the flour-milling industry, may lead to an increase in production concurrently with a decrease in number of employees. The former measure has to be adjusted for changes in the price level and, as between industries, it makes those in which the cost of raw materials is relatively high, appear to operate on a larger scale.

**Size as Measured by Gross Value of Products.**—While in 1922 the 420 establishments each producing over \$1,000,000 had an aggregate value of products of \$1,268,056,129 or 51 p.c. of the total production of all manufacturing industries, the 719 establishments producing over \$1,000,000 each in 1929 had an aggregate value of products of \$2,516,064,954, or 62 p.c. of the grand total for all manufacturing establishments—a very significant change in the short period of eight years. In 1931, however, the number of plants with a production of over \$1,000,000 dropped again to 482, their output being valued at \$1,451,658,954, or 53 p.c. of the total. Resulting from increased war production, the number of plants with a production of \$1,000,000 or over jumped to 1,376 in 1944 and their output was about 75 p.c. of the total value of manufactures. The number of establishments with a production of \$1,000,000 or over, although increasing to 1,442 in 1946, nevertheless saw a decline in the proportion of their output to 67 p.c. of the total.

**29.—Production of Manufacturing Establishments, Grouped according to Gross Value of Products, 1929, 1939, 1944 and 1946**

Group of Gross Values	1929 <sup>1</sup>			1939 <sup>2</sup>		
	Estab- lishments	Total Production	Average per Estab- lishment	Estab- lishments	Total Production	Average per Estab- lishment
	No.	\$	\$	No.	\$	\$
Under \$25,000.....	14,024	106,735,470	7,611	15,623	120,903,054	7,738
\$ 25,000 but under \$ 50,000...	2,802	99,529,725	35,521	2,803	99,558,383	35,519
50,000 " 100,000...	2,209	156,308,744	70,760	2,215	156,410,769	70,614
100,000 " 200,000...	1,688	237,532,492	140,718	1,584	225,582,130	142,413
200,000 " 500,000...	1,519	504,218,217	331,941	1,285	390,626,844	303,990
500,000 " 1,000,000...	636	443,597,677	697,481	689	466,441,130	676,983
1,000,000 " 5,000,000...	601	1,217,866,089	2,026,400	520	1,091,293,939	2,098,642
5,000,000 or over.....	118	1,298,198,865	11,001,685	81	923,724,311	11,404,004
<b>Totals and Averages.....</b>	<b>23,597</b>	<b>4,063,987,279</b>	<b>172,225</b>	<b>24,800</b>	<b>3,474,540,560</b>	<b>140,102</b>
	1944			1946		
	No.	\$	\$	No.	\$	\$
	No.	\$	\$	No.	\$	\$
Under \$25,000.....	13,942	128,782,147	9,237	14,478	138,504,608	9,566
\$ 25,000 but under \$ 50,000...	4,011	143,023,914	35,658	4,524	162,355,572	35,888
50,000 " 100,000...	3,442	245,273,500	71,259	3,958	282,976,378	71,495
100,000 " 200,000...	2,513	355,235,489	141,359	3,060	433,302,078	141,602
200,000 " 500,000...	2,256	714,546,348	316,731	2,620	824,481,340	314,687
500,000 " 1,000,000...	943	661,670,696	701,666	1,167	816,202,278	699,402
1,000,000 " 5,000,000...	1,089	2,294,546,053	2,107,021	1,183	2,376,006,853	2,008,459
5,000,000 or over.....	287	4,530,614,372	15,786,113	259	3,001,863,364	11,590,206
<b>Totals and Averages.....</b>	<b>28,483</b>	<b>9,073,692,519</b>	<b>318,565</b>	<b>31,249</b>	<b>8,035,692,471</b>	<b>257,150</b>

<sup>1</sup> Includes central electric stations and dyeing, cleaning and laundry establishments.  
of Yukon and the Northwest Territories.

<sup>2</sup> Exclusive

**Size as Measured by Number of Employees.**—In 1923, establishments employing 501 hands or over accounted for 21 p.c. of the total number of employees engaged in manufacturing. By 1929 the proportion increased to 27 p.c. of the total, thereby showing the increasing concentration of production into larger units. This tendency, however, was checked by the depression, the percentage dropping in 1933 to 20 p.c. (central electric stations included). With the recovery in production since 1933 the percentage rose again, and in 1939 stood at almost 26. The same held true for establishments employing 101 hands or over. In 1923 they employed nearly 59 p.c. of the total, in 1929, 62 p.c., in 1933, 56 p.c., and in 1939, 62 p.c.

The concentration of war industries into large units is illustrated by the increase in the number of establishments employing 500 hands or over. In 1939 such establishments numbered 172 and employed almost 26 p.c. of the total number of employees engaged in manufacturing. By 1944 the number had increased to 383 and the percentage of total employees to 47. A further subdivision of this group in 1944, shows that 226 establishments employed between 500 and 999 persons, 56 between 1,000 and 1,499, and 101 employed over 1,500. Altogether there were 12 plants employing over 7,000 persons. The largest one had an employment of a little over 13,000 with the next three largest employing between 9,000 and 10,000. Three other plants employed between 8,000 and 9,000 persons while the lowest five plants in this group employed between 7,000 and 8,000 workers.

In 1946 the size of establishment declined. Those employing 1,500 or over numbered only 55 as compared with 100 in 1944 and 80 in 1945. The largest manufacturing plant in Canada which employed over 13,000 persons in 1944 employed

about 12,000 in 1946. The next two largest establishments employed over 7,000 persons while the fourth had over 6,000 persons. The following statement gives the size distribution of the highest group in 1946:—

<i>Employees</i>	<i>Establishments</i>
Over 6,000.....	4
5,000 to 6,000.....	—
4,000 to 5,000.....	2
3,000 to 4,000.....	5
1,500 to 3,000.....	44
TOTAL.....	55

**30.—Manufacturing Establishments, Classified by Number of Employees, by Provinces and Territories, 1946**

Province or Territory	Up to 500	500 to 799	800 to 999	1,000 to 1,499	1,500 and over	Total
	No.	No.	No.	No.	No.	No.
Prince Edward Island.....	246	—	—	—	—	246
Nova Scotia.....	1,388	6	—	—	3	1,397
New Brunswick.....	986	4	2	—	1	993
Quebec.....	10,712	51	16	17	22	10,818
Ontario.....	11,264	91	19	26	24	11,424
Manitoba.....	1,351	—	—	3	3	1,357
Saskatchewan.....	953	2	—	—	—	955
Alberta.....	1,311	2	2	—	—	1,315
British Columbia.....	2,714	10	2	3	2	2,731
Yukon and Northwest Territories.....	13	—	—	—	—	13
<b>Canada.....</b>	<b>30,938</b>	<b>166</b>	<b>41</b>	<b>49</b>	<b>55</b>	<b>31,249</b>

**31.—Manufacturing Establishments and Employees, Grouped according to Number of Employees per Establishment, 1929, 1939, 1944 and 1946**

Group	1929 <sup>1</sup>			1939 <sup>2</sup>		
	Estab-lishments	Employees	Average per Estab-lishment	Estab-lishments	Employees	Average per Estab-lishment
	No.	No.	No.	No.	No.	No.
Under 5 employees.....	12,273	30,446	2.5	13,002	28,020	2.2
5 to 20 employees.....	6,160	62,310	10.1	6,985	68,151	9.8
21 " 50 ".....	2,531	81,846	32.3	2,330	75,324	32.3
51 " 100 ".....	1,262	90,238	71.5	1,158	81,646	70.5
101 " 200 ".....	745	103,944	139.5	695	97,063	139.7
201 " 500 ".....	444	136,397	307.2	458	139,687	305.0
501 or over.....	182	189,253	1,040.0	172	168,168	977.7
<b>Totals and Averages...</b>	<b>23,597</b>	<b>694,434</b>	<b>29.4</b>	<b>24,500</b>	<b>658,059</b>	<b>26.5</b>
	1944			1946		
	No.	No.	No.	No.	No.	No.
Under 5 employees.....	13,208	29,958	2.3	13,810	32,664	2.4
5 to 14 employees.....	7,111	58,404	8.2	8,190	67,530	8.2
15 " 49 ".....	4,615	124,408	27.0	5,488	146,939	26.7
50 " 99 ".....	1,622	113,869	70.2	1,759	122,919	69.8
100 " 199 ".....	900	126,192	140.2	1,032	144,240	139.7
200 " 499 ".....	644	196,707	305.4	659	202,114	306.7
500 or over.....	383	573,344	1,497.0	311	341,750	1,098.9
<b>Totals and Averages...</b>	<b>28,483</b>	<b>1,222,882</b>	<b>42.9</b>	<b>31,249</b>	<b>1,058,156</b>	<b>33.9</b>

<sup>1</sup> Includes central electric stations, dyeing, cleaning and laundry establishments. Yukon and the Northwest Territories.

<sup>2</sup> Exclusive of

**Size of Establishment in Leading Industries.**—Table 32 summarizes the degree of concentration in some of the leading industries of Canada. Concentration is extremely marked in the case of automobiles, railway rolling-stock, non-ferrous metal smelting and refining, rubber goods, cotton yarn and cloth, pulp and paper, and primary iron and steel; whereas in the case of bread and other bakery products, sawmills, miscellaneous foods, fish-curing and -packing, butter and cheese, and women's factory clothing, the degree of concentration is low.

**32.—Percentage Importance of Establishments, each Employing 200 or more Persons in the Twenty-Five Leading Industries, 1946**

Industry	Number of Such Establishments	Percentage of Total Number in the Industry	Percentage of Total Production in the Industry
1 Pulp and paper.....	62	54.9	92.7
2 Slaughtering and meat packing.....	28	19.0	75.1
3 Non-ferrous metal smelting and refining.....	11	73.3	95.8
4 Sawmills.....	21	0.4	22.1
5 Flour and feed mills.....	9	0.9	43.1
6 Butter and cheese.....	11	0.5	14.4
7 Electrical apparatus and supplies.....	42	15.8	74.4
8 Petroleum products.....	11	25.6	79.9
9 Automobiles.....	5	55.5	98.3
10 Clothing, women's factory.....	8	0.7	7.4
11 Railway rolling-stock.....	22	59.4	96.3
12 Rubber goods.....	21	35.0	94.1
13 Primary iron and steel.....	24	40.7	89.1
14 Clothing, men's factory.....	28	5.2	31.4
15 Bread and other bakery products.....	21	0.7	26.2
16 Machinery.....	33	11.0	51.9
17 Fruit and vegetable preparations.....	10	1.9	32.0
18 Sheet metal products.....	21	9.1	64.6
19 Miscellaneous foods.....	5	1.7	20.1
20 Cotton yarn and cloth.....	26	63.4	93.6
21 Breweries.....	9	14.7	50.4
22 Hosiery and knit goods.....	34	13.8	58.7
23 Printing and publishing.....	22	2.8	60.2
24 Fish curing and packing.....	6	1.0	18.9
25 Boots and shoes, leather.....	25	8.5	36.6

## PART II.—PROVINCIAL AND LOCAL DISTRIBUTION OF MANUFACTURING PRODUCTION

### Section 1.—Provincial Distribution of Manufacturing Production

Ontario and Quebec are by far the most important manufacturing provinces, their combined production in 1946 amounting to \$6,252,495,222 or 78 p.c. of the gross value of manufactured products of Canada. The proximity of Ontario to the coalfields of Pennsylvania, the water power and other varied resources of the two provinces, and their nearness to the larger markets of Canada and the United States have all contributed to their progress.

Table 1 shows the outstanding predominance of Ontario and Quebec in each industrial group. Quebec leads in the manufacture of textiles, but in each of the other groups Ontario has the greater production. The standing of these two Provinces is most nearly approached by British Columbia in the case of the wood and paper products group, where the latter Province accounts for 16 p.c. of the gross production compared with 36 p.c. for Ontario and 36 p.c. for Quebec.



## 1. — Summary Statistics of Manufactures of the Provinces and Territories, by Industrial Groups, 1946

Province and Group	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>Prince Edward Island</b>						
Vegetable products.....	33	245	262,282	950,275	527,396	1,511,420
Animal products.....	96	811	667,542	4,987,354	1,503,518	6,555,307
Wood and paper products....	106	445	342,475	460,110	636,456	1,123,304
Iron and its products.....	6	152	242,256	263,842	295,857	1,575,699
All other groups.....	5	102	136,914	920,465	506,208	1,434,580
<b>Totals.....</b>	<b>246</b>	<b>1,755</b>	<b>1,651,469</b>	<b>7,582,046</b>	<b>3,469,435</b>	<b>11,200,310</b>
<b>Nova Scotia</b>						
Vegetable products.....	160	3,147	4,074,434	9,941,637	9,182,812	19,584,643
Animal products.....	238	4,479	5,361,729	29,134,963	11,066,875	40,663,263
Textiles and textile products	30	2,397	2,601,101	5,888,590	5,200,615	11,288,121
Wood and paper products....	860	7,348	8,967,342	18,058,905	16,953,383	36,329,530
Iron and its products.....	68	10,507	18,713,446	18,128,159	21,388,175	42,029,197
Non-metallic mineral products.....	21	1,441	2,692,129	16,587,427	6,076,552	24,305,321
Chemicals and chemical products.....	16	359	590,968	2,513,536	1,761,857	4,380,379
Miscellaneous industries....	4	46	59,110	101,263	108,604	212,966
<b>Totals.....</b>	<b>1,397</b>	<b>29,724</b>	<b>43,060,259</b>	<b>100,354,480</b>	<b>71,735,873</b>	<b>178,793,420</b>
<b>New Brunswick</b>						
Vegetable products.....	149	2,957	3,880,241	28,848,415	10,035,189	39,611,771
Animal products.....	201	3,300	3,366,524	16,704,209	7,223,198	24,323,155
Textiles and textile products	20	1,975	2,429,490	3,796,159	4,436,654	8,458,604
Wood and paper products....	556	9,360	14,301,842	37,922,696	31,219,354	73,577,899
Iron and its products.....	32	3,696	6,949,937	3,638,894	10,937,011	14,983,484
Non-metallic mineral products.....	21	307	437,047	743,502	1,213,274	2,201,828
Chemicals and chemical products.....	8	222	413,410	2,741,396	1,111,440	3,894,551
Miscellaneous industries.....	6	915	1,373,428	1,994,028	1,607,257	3,702,449
<b>Totals.....</b>	<b>993</b>	<b>22,732</b>	<b>33,151,919</b>	<b>96,389,299</b>	<b>67,783,377</b>	<b>170,753,741</b>
<b>Quebec</b>						
Vegetable products.....	1,855	40,599	59,530,796	210,709,596	154,425,130	370,615,635
Animal products.....	1,866	34,799	46,039,869	203,331,809	76,697,826	282,790,238
Textiles and textile products	1,745	90,312	124,974,989	253,352,836	232,343,258	491,637,370
Wood and paper products....	3,840	72,159	118,173,148	243,345,019	256,345,060	527,311,296
Iron and its products.....	533	65,436	124,818,420	137,997,257	184,846,559	330,375,759
Non-ferrous metal products.	193	24,536	43,450,930	116,964,349	84,846,488	213,677,920
Non-metallic mineral products.....	240	9,506	16,508,648	65,114,647	50,760,696	126,049,931
Chemicals and chemical products.....	327	13,893	23,813,603	50,544,497	68,970,904	122,786,625
Miscellaneous industries.....	219	6,036	8,675,702	15,649,089	16,755,927	32,726,747
<b>Totals.....</b>	<b>10,818</b>	<b>357,276</b>	<b>565,986,105</b>	<b>1,297,009,099</b>	<b>1,125,991,848</b>	<b>2,497,971,521</b>
<b>Ontario</b>						
Vegetable products.....	2,484	68,455	106,303,669	433,535,809	289,442,715	734,685,876
Animal products.....	1,505	34,860	55,687,173	297,613,326	95,126,366	397,619,498
Textiles and textile products	1,069	62,619	88,483,615	168,923,082	157,862,117	330,901,182
Wood and paper products....	3,319	84,230	140,498,833	234,510,901	276,910,901	527,825,173
Iron and its products.....	1,241	142,765	272,854,241	424,445,021	432,981,909	879,159,689
Non-ferrous metal products.	466	54,424	94,813,566	223,684,543	179,835,354	415,291,772
Non-metallic mineral products.....	443	18,817	33,250,556	104,062,806	85,584,503	204,854,445
Chemicals and chemical products.....	534	19,351	34,791,639	87,690,705	105,176,302	199,676,206
Miscellaneous industries.....	363	12,599	18,533,255	27,434,399	36,364,455	64,512,860
<b>Totals.....</b>	<b>11,424</b>	<b>498,120</b>	<b>845,216,547</b>	<b>2,001,900,592</b>	<b>1,659,284,622</b>	<b>3,754,523,701</b>

<sup>1</sup> Includes textiles, non-metallic minerals and chemicals.<sup>2</sup> Includes non-ferrous metals.

# 1. — Summary Statistics of Manufactures of the Provinces and Territories, by Industrial Groups, 1946—continued

Province and Group	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>Manitoba</b>						
Vegetable products.....	264	5,245	7,923,303	48,374,849	25,928,097	75,514,988
Animal products.....	206	7,986	13,146,183	99,218,186	24,304,787	124,336,784
Textiles and textile products	111	4,649	5,901,098	18,612,673	10,601,583	29,350,755
Wood and paper products....	528	6,861	10,237,146	15,332,164	20,916,815	37,248,226
Iron and its products.....	104	9,831	18,042,446	18,946,075	24,560,395	44,738,951
Non-ferrous metal products.	27	986	1,477,030	10,458,859	4,142,189	14,854,476
Non-metallic mineral products.....	42	1,278	1,917,867	5,740,254	5,957,922	12,918,953
Chemicals and chemical products.....	37	654	991,259	3,487,987	3,365,949	6,929,111
Miscellaneous industries.....	38	877	1,382,013	2,925,888	3,003,068	5,904,855
<b>Totals.....</b>	<b>1,357</b>	<b>38,367</b>	<b>61,018,345</b>	<b>223,096,935</b>	<b>122,780,805</b>	<b>351,887,099</b>
<b>Saskatchewan</b>						
Vegetable products.....	181	2,702	4,160,727	35,541,535	12,623,923	48,950,092
Animal products.....	96	3,871	6,113,007	49,889,664	11,427,038	61,878,529
Textiles and textile products	6	151	186,434	1,260,938	427,888	1,699,028
Wood and paper products.....	580	3,231	3,772,780	4,808,819	6,976,326	12,027,076
Iron and its products.....	39	555	903,799	1,057,655	1,556,538	2,677,181
Non-metallic mineral products.....	33	845	1,629,384	16,084,380	4,258,119	21,258,459
Chemicals and chemical products.....	11	106	162,413	360,230	587,312	963,089
Miscellaneous industries <sup>1</sup> ....	9	496	1,027,773	17,592,540	602,486	18,903,165
<b>Totals.....</b>	<b>955</b>	<b>11,957</b>	<b>17,956,317</b>	<b>126,595,761</b>	<b>38,459,630</b>	<b>168,356,619</b>
<b>Alberta</b>						
Vegetable products.....	280	4,586	7,019,001	47,421,753	26,839,416	75,033,065
Animal products.....	149	5,379	8,665,943	80,884,581	17,033,682	98,594,171
Textiles and textile products	29	865	1,108,582	2,311,401	2,101,052	4,434,880
Wood and paper products....	697	5,843	7,673,009	14,825,581	15,032,964	30,276,895
Iron and its products.....	74	2,966	5,590,952	5,173,186	7,632,867	13,059,146
Non-ferrous metal products.	7	83	134,715	287,894	300,217	596,214
Non-metallic mineral products.....	48	2,256	3,505,579	17,136,615	10,194,245	28,470,159
Chemicals and chemical products.....	18	486	922,771	1,040,910	3,820,536	5,424,071
Miscellaneous industries.....	13	185	318,536	343,255	780,032	1,143,266
<b>Totals.....</b>	<b>1,315</b>	<b>22,649</b>	<b>34,939,088</b>	<b>169,425,176</b>	<b>83,735,011</b>	<b>257,031,867</b>
<b>British Columbia</b>						
Vegetable products.....	507	9,223	13,722,254	56,087,285	46,937,972	104,354,880
Animal products.....	171	7,359	12,490,867	67,478,712	26,896,140	95,472,814
Textiles and textile products	70	1,721	2,280,898	5,184,797	5,106,677	10,367,036
Wood and paper products....	1,502	34,630	62,069,125	110,060,332	124,037,264	238,668,191
Iron and its products.....	260	13,339	27,619,952	25,689,647	51,182,526	77,852,777
Non-ferrous metal products.	43	3,916	8,862,192	43,805,898	8,104,894	54,956,585
Non-metallic mineral products.....	60	2,003	3,807,682	14,884,478	9,293,299	25,949,868
Chemicals and chemical products.....	64	2,162	4,781,845	10,356,547	18,551,847	31,366,250
Miscellaneous industries.....	54	1,131	1,892,830	2,160,837	3,242,033	5,539,497
<b>Totals.....</b>	<b>2,731</b>	<b>75,484</b>	<b>137,506,645</b>	<b>335,708,533</b>	<b>293,352,652</b>	<b>644,527,898</b>
<b>Yukon and N.W.T.</b>						
Vegetable products.....	3	11	16,974	24,907	20,804	51,760
Wood and paper products....	6	14	13,862	18,958	26,488	48,532
All other groups <sup>2</sup> .....	4	67	169,724	128,980	361,435	546,003
<b>Totals.....</b>	<b>13</b>	<b>92</b>	<b>200,560</b>	<b>172,845</b>	<b>408,727</b>	<b>646,295</b>

<sup>1</sup> Includes non-ferrous metals.

<sup>2</sup> Includes iron and its products, non-ferrous metal products, non-metallic mineral products and miscellaneous industries.

### 1. — Summary Statistics of Manufactures of the Provinces and Territories, by Industrial Groups, 1946—concluded

Group	Estab-lish-ments	Em-ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
Canada	No.	No.	\$	\$	\$	\$
Vegetable products.....	5,916	137,170	206,893,681	871,436,061	575,963,454	1,469,914,130
Animal products.....	4,528	102,844	151,517,837	849,242,804	271,279,430	1,132,233,759
Textiles and textile products	3,082	164,737	228,018,323	459,664,221	418,263,665	888,658,943
Wood and paper products...	11,994	224,121	366,049,562	679,343,485	749,055,011	1,484,436,122
Iron and its products.....	2,358	249,279	475,812,983	635,344,199	735,459,371	1,405,542,865
Non-ferrous metal products.	740	84,853	150,366,178	413,022,247	278,461,262	719,191,106
Non-metallic mineral products.....	910	36,493	63,848,640	240,485,869	173,638,196	446,484,682
Chemicals and chemical products.....	1,017	37,278	66,538,532	159,308,350	203,639,442	376,288,264
Miscellaneous industries.....	704	21,381	31,641,518	50,387,530	61,245,149	112,942,600
<b>Totals.....</b>	<b>31,249</b>	<b>1,058,156</b>	<b>1,740,687,254</b>	<b>4,358,234,766</b>	<b>3,467,004,980</b>	<b>8,035,692,471</b>

The degree of concentration of manufacturing production in large units is illustrated in Table 2. In the Province of Quebec 35 p.c. of all persons engaged in manufacturing were employed in establishments having 500 or more employees, as compared with 32 p.c. for Canada as whole. Ontario ranked second with 34 p.c., followed by Nova Scotia with 32 p.c., New Brunswick 26 p.c., Manitoba 24 p.c., British Columbia 23 p.c., Alberta 14 p.c., and Saskatchewan 9 p.c. There were no plants in Prince Edward Island employing 500 or more persons.

### 2.—Concentration of Manufacturing Production in the Provinces, 1946

Province	Number of Establishments Employing 500 or More Persons	Percentage of Total Number of Establishments in Province	Provincial Percentage of Number of Employees Accounted for by these Establishments
Prince Edward Island.....	—	—	—
Nova Scotia.....	9	0.6	32.4
New Brunswick.....	7	0.7	26.0
Quebec.....	106	1.0	35.3
Ontario.....	160	1.4	34.0
Manitoba.....	6	0.4	24.2
Saskatchewan.....	2	0.2	9.1
Alberta.....	4	0.3	13.8
British Columbia.....	17	0.6	22.7
<b>Totals.....</b>	<b>311</b>	<b>1.0</b>	<b>32.3</b>

### Subsection 1.—The Manufactures of the Maritime Provinces, 1946

In Prince Edward Island the predominant agricultural and fishery resources make butter and cheese, and fish-curing and -packing, the leading manufactures of the Province. Nova Scotia is renowned for its coal mines and its fisheries, as well as extensive forests and agricultural lands and is favoured with easy access by sea to the high-grade iron-ore supply of Newfoundland. On these resources are based the leading manufactures of primary iron and steel, shipbuilding and repairs, fish-curing and -packing, sawmills, pulp and paper, and butter and cheese. In addition to this, important petroleum refineries and coke and gas plants add to the diversification of manufacturing in the Province. The forests of New Brunswick give a



leading place to its pulp and paper and sawmilling industries, although fish and agricultural products add to the varied output. Sugar refining and the production of railway rolling-stock also form important branches of manufacturing production.

### 3.—Statistics of the Leading Industries of the Maritime Provinces, 1946

Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
PRINCE EDWARD ISLAND						
	No.	No.	\$	\$	\$	\$
1 Fish curing and packing.....	68	651	483,093	3,300,314	1,146,315	4,479,928
2 Butter and cheese.....	26	146	160,534	1,673,587	331,333	2,035,711
3 Fruit and vegetable preparations..	4	91	101,788	512,909	218,675	742,955
4 Sawmills.....	86	207	74,353	284,271	269,782	562,631
5 Bread and other bakery products.	13	85	78,093	176,513	134,841	321,453
6 Printing and publishing.....	4	130	160,925	53,851	226,415	288,742
7 Planing mills.....	4	39	49,618	80,061	63,929	146,454
8 All other leading industries <sup>1</sup> .....	8	188	297,631	1,188,575	684,554	1,893,491
<b>Totals, Leading Industries</b>	<b>213</b>	<b>1,537</b>	<b>1,406,035</b>	<b>7,270,081</b>	<b>3,075,844</b>	<b>10,471,365</b>
<b>Totals, All Industries.....</b>	<b>246</b>	<b>1,755</b>	<b>1,651,469</b>	<b>7,582,046</b>	<b>3,469,435</b>	<b>11,200,310</b>
NOVA SCOTIA						
	No.	No.	\$	\$	\$	\$
1 Fish curing and packing.....	192	3,641	4,222,532	23,261,705	8,701,541	32,273,346
2 Sawmills.....	617	3,619	3,231,603	9,427,246	6,605,408	16,159,079
3 Primary iron and steel.....	5	4,377	7,752,182	9,176,713	4,054,041	14,942,738
4 Shipbuilding and repairs.....	23	3,631	6,726,461	3,515,030	9,724,992	13,499,055
5 Pulp and paper.....	5	882	1,986,558	3,176,565	4,000,230	8,175,564
6 Butter and cheese.....	26	540	767,041	4,095,287	1,570,236	5,774,730
7 Railway rolling-stock.....	3	745	1,271,422	2,777,448	2,222,698	5,227,960
8 Fruit and vegetable preparations.	20	887	950,783	2,810,185	1,717,255	4,679,124
9 Bread and other bakery products.	87	762	1,022,479	2,265,124	2,041,757	4,450,918
10 Planing mills, sash and door fac- tories.....	56	792	974,460	2,449,408	1,444,995	3,960,099
11 Biscuits, confectionery, cocoa, etc.	8	802	1,009,356	2,008,635	1,766,793	3,829,441
12 Hosiery and knitted goods.....	4	852	896,325	1,657,737	1,800,484	3,512,688
13 Printing and publishing.....	34	849	1,385,413	659,942	2,659,356	3,374,431
14 Aerated and mineral waters.....	29	248	375,580	755,501	1,640,898	2,262,416
15 Fertilizers.....	3	90	121,451	1,653,668	441,117	2,107,382
16 All other leading industries <sup>1</sup> .....	7	2,159	3,680,513	18,561,972	8,784,218	29,002,292
<b>Totals, Leading Industries</b>	<b>1,119</b>	<b>24,876</b>	<b>36,374,189</b>	<b>88,074,166</b>	<b>59,176,019</b>	<b>153,240,263</b>
<b>Totals, All Industries.....</b>	<b>1,397</b>	<b>29,724</b>	<b>43,060,259</b>	<b>100,354,480</b>	<b>71,738,873</b>	<b>178,793,420</b>
NEW BRUNSWICK						
	No.	No.	\$	\$	\$	\$
1 Pulp and paper.....	6	3,368	7,123,993	20,517,578	18,140,636	42,739,296
2 Sawmills.....	411	3,276	3,534,745	10,475,578	6,629,108	17,230,075
3 Fish curing and packing.....	148	2,240	1,934,521	9,147,004	3,984,216	13,378,101
4 Miscellaneous foods.....	7	344	426,818	8,673,104	843,651	9,531,683
5 Butter and cheese.....	32	390	493,114	3,629,396	1,210,132	4,936,423
6 Planing mills, sash and door fac- tories.....	41	838	1,110,134	2,699,238	1,655,410	4,409,881
7 Bread and other bakery products.	77	715	1,006,250	2,051,227	1,777,170	3,959,212
8 Slaughtering and meat packing.	3	250	406,454	2,876,536	1,041,949	3,951,744
9 Fertilizers.....	3	181	339,362	2,612,061	850,470	3,484,020
10 Stock and poultry feeds.....	6	130	198,383	2,760,887	341,704	3,125,296
11 Heating and cooking apparatus.	3	672	1,088,365	891,411	1,764,509	2,717,218
12 Biscuits, confectionery, cocoa, etc.	9	591	579,607	1,238,334	1,351,431	2,642,226
13 All other leading industries <sup>1</sup> .....	11	5,101	8,977,036	18,944,664	17,294,034	37,210,665
<b>Totals, Leading Industries</b>	<b>757</b>	<b>18,096</b>	<b>27,218,782</b>	<b>86,517,018</b>	<b>56,884,420</b>	<b>149,315,845</b>
<b>Totals, All Industries.....</b>	<b>993</b>	<b>22,732</b>	<b>33,151,919</b>	<b>96,389,299</b>	<b>67,783,377</b>	<b>170,753,741</b>

<sup>1</sup> Individual statistics cannot be given because there are fewer than three establishments in each industry. Such industries are: in Prince Edward Island, starch and glucose, castings and forgings, sheet metal products, fertilizers, cotton and jute bags; in Nova Scotia, cotton yarn and cloth, miscellaneous iron and steel products, wire, coke and gas, and petroleum; in New Brunswick, sugar refineries, railway rolling-stock, cotton yarn and cloth, silk and artificial silk goods, and veneer and plywoods, breweries, shipbuilding, and brooms, brushes and mops.



## Subsection 2.—The Manufactures of Quebec, 1946

Among the assets of Quebec that have tended to develop manufacturing industries in the Province may be mentioned its natural resources of forests, water powers, minerals, agricultural lands, and its geographic position astride the St. Lawrence estuary permitting sea-going shipping to reach its main centres of population. Added to these natural advantages, there is a stable and industrious population, which is an important factor in industries such as textiles, clothing, boots and shoes, etc., where a large labour force is required.

The most notable change among the manufactures of Quebec in recent years has been the development of the non-ferrous metal smelting industry. This industry first appeared among the forty leading industries of the Province in nineteenth place in 1927. It has been in second place since 1935, with the exception of 1942 when it was in first place.

Quebec with about 31 p.c. of the total Canadian output in 1946 was the second largest manufacturing province. The production of pulp and paper again occupied the premier position which was held during 1942 by non-ferrous metal smelting and refining and in 1943 and 1944 by miscellaneous chemical products. In addition to accounting for about 11 p.c. of the gross value of Quebec manufactures in 1946 the pulp and paper industry furnished about 50 p.c. of the Canadian total for this industry. The value of tobacco products totalled approximately 89 p.c., cotton yarn and cloth 71 p.c., women's factory clothing 68 p.c., silk 68 p.c., leather boots and shoes 65 p.c., men's factory clothing 59 p.c., railway rolling-stock 54 p.c., fur goods 48 p.c., and hosiery and knit goods 41 p.c. Quebec is thus an outstanding manufacturing province by reason of large individual industries and not so much on account of a great diversification of manufacturing activity.

## 4.—Statistics of the Leading Industries of the Province of Quebec, 1946

Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
1 Pulp and paper.....	50	21,628	48,230,279	110,153,483	130,761,861	265,989,953
2 Clothing, women's factory.....	702	19,785	28,484,879	62,386,741	55,561,988	118,193,625
3 Non-ferrous metal smelting and refining.....	6	4,706	9,219,149	63,620,424	32,195,891	106,254,910
4 Clothing, men's, factory.....	334	14,820	20,578,282	49,685,063	40,009,113	89,933,365
5 Railway rolling-stock.....	10	13,385	27,770,157	49,563,606	35,804,561	87,188,385
6 Cotton yarn and cloth.....	16	13,726	20,062,866	45,882,620	30,396,295	78,418,260
7 Slaughtering and meat packing.....	33	3,340	5,939,938	66,896,722	9,299,914	76,749,913
8 Tobacco, cigars and cigarettes.....	51	8,370	11,238,413	41,036,289	31,218,513	72,515,400
9 Sawmills.....	1,989	11,581	12,309,305	41,541,973	24,202,772	66,160,934
10 Petroleum products.....	6	1,465	3,076,642	42,101,046	18,703,005	63,510,289
11 Boots and shoes, leather.....	195	14,707	18,286,224	34,675,039	27,605,672	62,555,915
12 Butter and cheese.....	972	4,224	5,277,863	48,818,179	9,664,130	59,611,193
13 Electrical apparatus and supplies.....	50	12,809	22,738,340	25,796,463	32,720,757	59,193,595
14 Silk and artificial silk.....	27	9,105	12,814,308	17,245,790	26,101,622	44,451,338
15 Machinery.....	58	8,758	15,687,098	15,721,623	27,891,880	44,201,572
16 Hosiery and knit goods.....	103	10,283	12,790,198	19,126,820	23,751,754	43,372,805
17 Bread and other bakery products.....	1,046	8,064	10,980,494	18,354,823	18,994,359	37,742,168
18 Breweries.....	8	3,216	6,889,682	7,468,063	23,902,821	31,949,882
19 Shipbuilding.....	10	6,785	13,505,617	14,559,194	16,359,621	31,382,338
20 Medicinal and pharmaceutical preparations.....	86	3,450	6,056,294	10,318,114	20,769,872	31,344,798
21 Aircraft.....	8	8,935	19,129,503	4,702,362	24,251,749	29,486,356
22 Sheet metal products.....	51	4,825	7,611,196	16,004,074	12,657,708	29,032,473
23 Rubber goods.....	20	6,142	8,974,774	10,839,402	17,013,297	28,356,599
24 Furniture.....	254	6,465	9,286,410	13,185,493	14,590,364	28,097,295
25 Miscellaneous foods.....	75	1,464	2,258,127	18,852,519	9,003,188	28,074,228
26 Fur goods.....	261	3,064	4,942,500	19,039,426	8,521,892	27,630,349
27 Flour and feed mills.....	164	1,059	1,865,087	22,190,667	4,901,903	27,350,744

## 4.—Statistics of the Leading Industries of the Province of Quebec, 1946—concluded

	Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
		No.	No.	\$	\$	\$	\$
28	Planing mills, sash and door factories.....	490	4,868	6,462,279	17,118,086	9,428,394	26,849,328
29	Printing and publishing.....	73	5,157	9,738,921	6,135,451	18,867,464	25,221,284
30	Stock and poultry feeds.....	56	806	1,272,173	20,346,411	2,981,860	23,479,559
31	Biscuits, confectionery, cocoa, etc.	63	3,312	3,936,761	12,847,743	9,700,845	22,883,494
32	Hardware, tools and cutlery.....	60	4,636	7,568,832	6,655,806	15,307,932	22,344,965
33	Boxes and bags, paper.....	47	3,951	4,862,810	12,234,358	9,475,105	21,872,736
34	Paints, pigments and varnishes.....	27	2,157	3,508,596	10,849,903	10,669,479	21,712,952
35	Brass and copper products.....	39	3,111	5,350,872	12,629,530	8,564,066	21,589,982
36	Printing and bookbinding.....	446	5,542	8,881,350	7,175,267	13,788,442	21,184,911
37	Fruit and vegetable preparations.....	174	2,725	2,828,438	13,532,828	6,858,011	20,676,677
38	Castings, iron.....	58	3,913	7,455,679	7,595,229	12,555,006	20,620,388
39	Distilleries.....	7	1,486	2,724,456	7,877,977	11,765,214	20,106,764
40	Woollen cloth.....	41	3,090	4,278,601	11,534,000	8,168,356	20,070,990
<b>Totals, Leading Industries<sup>1</sup></b>		<b>8,166</b>	<b>270,915</b>	<b>434,873,393</b>	<b>1,036,298,607</b>	<b>864,086,676</b>	<b>1,957,462,716</b>
<b>Totals, All Industries</b>		<b>10,818</b>	<b>357,276</b>	<b>565,986,105</b>	<b>1,297,009,099</b>	<b>1,125,991,848</b>	<b>2,497,971,521</b>
Percentage of Leading Industries to All Industries.....		75.4	75.8	76.8	79.9	76.7	78.4

<sup>1</sup> Sugar refining is also one of the leading industries but statistics for that industry cannot be published.

## Subsection 3.—The Manufactures of Ontario, 1946

The gross value of the manufactured products of Ontario in 1946 represented about 47 p.c. of the total for Canada. This premier position in manufacturing has been fairly uniformly maintained, as the following percentages show: 1926, 52 p.c.; 1918, 53 p.c.; 1910, 50 p.c.; 1900, 50 p.c.; 1890, 51 p.c.; and 1880, 51 p.c. In spite of the rapid industrial development in recent years in other provinces, such as Quebec, British Columbia and Manitoba, Ontario is maintaining a manufacturing production roughly equal to that of the remainder of the country.

The geographic position of Ontario on the Great Lakes waterway system, by means of which the iron ore of Minnesota and the coal of Pennsylvania are readily accessible, the wide range of natural resources of forests, minerals, water powers and agriculture, a large population and excellent water and rail transportation facilities to other parts of the country, have all encouraged industrial development. Other factors have been proximity to one of the most densely populated sections of the United States and the establishment within the Province of branch factories of United States industries, such as automobile manufacturing.

Industries producing capital or durable goods, which constitute an important factor in the manufactures of Ontario, were particularly hard hit during the early years of the depression preceding the Second World War. Thus, production was disproportionately curtailed in such important industries as automobiles, electrical equipment, machinery, agricultural implements, and primary iron and steel. This resulted in a lowering of the manufacturing production of the whole Province relative to that of other provinces less affected by these influences. With the recovery since 1933 and the expansion in production resulting from the Second World War these industries in general have made good recovery, and Ontario, which accounted for 49 p.c. of the gross value of all products manufactured in Canada in 1933, had by 1942 increased the relative value to nearly 51 p.c. In 1946 the percentage dropped again to 47, indicating a relatively greater expansion of production in other provinces.

Ontario also has the greatest diversification of manufacturing production of any province. Outstanding among the industries in which this province is pre-eminent are those of automobiles, agricultural implements, starch, bicycles and carpet manufacture which are carried on almost exclusively in this Province. Other important industries in which Ontario leads, with the percentage which the production of each bore to that of the Canada total in 1946, are as follows: abrasives 87, miscellaneous non-ferrous metal products 86, leather tanneries 86, soap and washing compounds 85, rubber goods 82, cordage, rope and twine 81, clay products from imported clay 78, primary iron and steel 75, woollen yarn 73, electrical apparatus and supplies 73, aluminum products 73, salt 68, toilet preparations 61, coke and gas products 59, acids, alkalies and salts 56, flour and feed 54, hosiery and knit goods 53, furniture 50, and glass and glass products 50.

### 5.—Statistics of the Leading Industries of the Province of Ontario, 1946

Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
1 Automobiles.....	6	21,322	43,455,884	135,104,937	54,984,511	192,039,831
2 Electrical apparatus and supplies..	184	30,322	50,524,552	73,921,338	94,716,370	170,544,377
3 Pulp and paper.....	43	14,529	32,973,773	71,781,807	77,981,832	162,452,033
4 Slaughtering and meat packing..	66	7,214	13,391,389	137,490,060	15,819,275	154,469,785
5 Flour and feed mills.....	639	4,341	6,729,268	123,825,572	16,876,519	141,778,944
6 Rubber goods, including rubber footwear.....	32	15,864	28,762,443	51,275,405	76,336,049	130,924,552
7 Non-ferrous metal smelting and refining.....	7	6,103	12,691,148	81,917,267	29,313,063	119,239,873
8 Primary iron and steel.....	27	15,078	34,064,990	52,829,743	52,058,994	114,303,838
9 Automobile supplies.....	81	14,444	26,178,821	41,614,138	45,714,971	88,922,647
10 Butter and cheese.....	805	8,381	12,763,218	65,105,764	21,625,476	88,473,118
11 Machinery.....	187	15,580	29,257,334	30,574,279	56,594,926	88,139,292
12 Petroleum products.....	15	3,252	6,871,860	56,506,009	23,923,447	84,920,432
13 Fruit and vegetable preparations.....	209	9,680	11,650,192	48,714,120	33,551,564	83,385,937
14 Sheet metal products.....	124	10,171	16,920,273	37,203,002	32,287,625	70,375,881
15 Bread and other bakery products.....	1,033	14,239	20,364,187	31,236,822	33,597,415	66,880,621
16 Agricultural implements.....	31	13,109	24,417,195	31,372,769	27,479,830	59,948,789
17 Hosiery and knit goods.....	127	13,051	15,668,563	24,935,572	29,782,077	55,380,305
18 Castings, iron.....	100	10,804	20,065,535	17,352,143	33,637,813	52,671,322
19 Printing and publishing.....	297	9,706	18,807,757	13,059,243	38,554,540	52,076,078
20 Leather tanneries.....	29	4,449	7,789,691	30,196,074	18,209,643	49,194,823
21 Hardware, tools and cutlery.....	190	10,645	18,705,339	15,309,707	31,955,566	48,152,953
22 Biscuits, confectionery, cocoa, etc.	90	6,901	9,394,549	23,631,069	23,424,582	47,636,913
23 Brass and copper products.....	97	6,200	11,517,985	25,816,184	20,032,061	46,536,290
24 Clothing, men's, factory.....	136	9,624	13,681,057	24,064,034	21,878,658	46,088,948
25 Clothing, women's factory.....	335	8,004	13,588,240	22,439,259	22,436,017	44,988,114
26 Food, miscellaneous.....	122	3,648	5,196,291	29,305,817	14,994,779	44,539,691
27 Printing and bookbinding.....	598	10,219	15,707,328	17,642,399	26,432,589	44,427,475
28 Boxes and bags, paper.....	87	6,764	9,690,385	22,581,418	18,863,853	41,769,614
29 Sawmills.....	1,022	7,635	8,841,523	22,196,338	19,027,769	41,526,408
30 Miscellaneous paper products.....	99	4,754	7,510,088	21,343,464	17,984,320	39,723,155
31 Furniture.....	316	10,055	15,116,914	16,742,665	22,142,508	39,417,871
32 Railway rolling-stock.....	15	5,789	11,659,986	18,168,596	19,024,563	37,823,325
33 Feeds, stock and poultry.....	91	1,797	2,982,053	29,722,630	7,169,237	37,257,738
34 Breweries.....	22	2,710	5,664,179	8,356,551	28,354,082	37,190,926
35 Coke and gas products.....	18	2,964	5,386,627	22,432,773	11,154,482	36,661,440
36 Tobacco processing and packing..	10	914	1,337,733	31,246,064	3,522,675	34,852,949
37 Medicinal and pharmaceutical preparations.....	99	3,992	6,439,258	12,229,955	21,180,645	33,583,946
38 Woollen cloth.....	41	5,811	8,162,456	17,655,238	14,381,104	32,607,602
39 Soaps, washing compounds, etc....	70	2,497	5,040,079	17,046,781	14,994,121	32,592,075
40 Jewellery and silver-plated ware..	100	4,431	7,345,723	18,267,401	12,140,644	30,590,757
<b>Totals, Forty Leading Industries.....</b>	<b>7,600</b>	<b>356,993</b>	<b>616,315,866</b>	<b>1,572,214,407</b>	<b>1,184,140,195</b>	<b>2,824,090,668</b>
<b>Totals, All Industries.....</b>	<b>11,424</b>	<b>498,120</b>	<b>845,216,547</b>	<b>2,001,900,592</b>	<b>1,659,284,622</b>	<b>3,754,523,701</b>
Percentage of Leading Industries to All Industries.....	66.5	71.7	72.9	78.5	71.4	75.3



### Subsection 4. —The Manufactures of the Prairie Provinces, 1946

The leading industries of the Prairie Provinces are those based on their agricultural resources—grain-growing, cattle-raising, and dairying areas. Next in importance, generally, are industries providing for the more necessary needs of the resident population, such as the baking of bread, printing and publishing, etc. The extensive railway services require large shops for the maintenance of rolling-stock, especially in the Winnipeg area. The widespread use of motor-vehicles and power machinery on farms has given rise to petroleum refineries in each province. The greatly increased production of crude petroleum in Alberta seems likely to lead to further development of the refining industry. Manitoba, as the early commercial centre of the prairies, has had a greater industrial development than either of the other provinces. Its natural resources of accessible water powers, forests and, more recently, minerals, have given rise to a diversification of industrial production.

Considering the Prairie Provinces as an economic unit, slaughtering and meat packing had the largest gross value of production in 1946, amounting to \$211,887,820, followed by flour and feed mills with \$91,168,034, butter and cheese \$57,039,341, and petroleum products \$43,889,825. These four industries accounted for 52 p.c. of the total production of the Prairie Provinces. Other leading industries, in the order named, were: railway rolling-stock, breweries, bread and other bakery products, sawmills, printing and publishing, etc.

### 6.—Statistics of the Leading Industries of the Prairie Provinces, 1946

Industry	Estab-lish-ments	Em-ployees	Salaries and Wages	Cost of Materials Used	Net Value of Products	Gross Value of Products
MANITOBA						
	No.	No.	\$	\$	\$	\$
1 Slaughtering and meat packing...	12	4,629	8,141,688	78,268,464	15,454,438	94,167,162
2 Flour and feed mills.....	37	785	1,220,881	23,111,920	3,752,566	27,073,112
3 Railway rolling-stock.....	4	5,430	10,674,131	10,140,859	11,174,777	21,806,635
4 Butter and cheese.....	90	1,545	2,506,876	13,463,553	4,767,075	18,536,315
5 Clothing, men's factory.....	37	1,910	2,248,608	5,577,516	4,311,149	9,925,705
6 Miscellaneous foods.....	18	375	517,484	6,650,181	1,794,248	8,481,279
7 Clothing, women's factory.....	38	1,463	2,026,363	5,130,229	3,274,767	8,432,746
8 Breweries.....	6	602	1,198,752	1,682,473	6,345,960	8,166,145
9 Bags, cotton and jute.....	5	299	422,880	6,309,779	1,334,945	7,663,520
10 Bread and other bakery products	130	1,442	2,042,182	3,483,947	3,552,678	7,269,234
11 Malt mills.....	3	212	451,529	3,305,563	2,490,095	6,054,450
12 Biscuits, confectionery, cocoa, etc.	14	739	884,615	2,496,068	3,183,714	5,753,162
13 Printing and bookbinding.....	82	1,445	2,232,931	1,901,444	3,616,318	5,579,377
14 Printing and publishing.....	79	1,260	1,969,125	1,266,375	4,143,647	5,479,277
15 Fur goods.....	54	696	1,056,938	3,506,768	1,834,711	5,352,959
16 All other leading industries.....	3	499	1,152,559	9,571,501	5,042,450	15,389,211
<b>Totals, Leading Industries.</b>	<b>612</b>	<b>23,331</b>	<b>38,747,542</b>	<b>175,866,140</b>	<b>76,072,938</b>	<b>255,130,290</b>
<b>Totals, All Industries.....</b>	<b>1,357</b>	<b>38,367</b>	<b>61,018,345</b>	<b>223,096,935</b>	<b>122,780,805</b>	<b>351,887,099</b>
SASKATCHEWAN						
	No.	No.	\$	\$	\$	\$
1 Slaughtering and meat packing...	8	2,233	3,847,970	33,351,608	6,903,836	40,530,080
2 Flour and feed mills.....	37	803	1,407,399	26,776,239	3,092,736	30,282,634
3 Butter and cheese.....	69	1,464	2,006,632	15,817,810	4,088,011	20,179,912
4 Petroleum products.....	7	576	1,160,143	15,619,338	3,268,847	19,705,687
5 Breweries.....	5	388	705,274	1,291,297	5,452,797	6,852,625
6 Bread and other bakery products	91	1,009	1,284,987	2,786,958	2,419,931	5,351,563
7 Sawmills.....	390	1,349	903,609	1,672,775	2,178,140	3,947,249
8 Printing and publishing.....	109	950	1,563,560	705,810	2,758,153	3,527,464
9 Feeds, stock and poultry.....	9	104	179,414	1,762,664	327,933	2,118,892
10 Miscellaneous foods.....	8	152	187,692	1,585,814	354,247	1,957,440

For footnote, see end of table.



## 6.—Statistics of the Leading Industries of the Prairie Provinces, 1946—concluded

Industry	Estab-lish-ments	Em-ployees	Salaries and wages	Cost of Materials Used	Net Value of Products	Gross Value of Products
SASKATCHEWAN—concluded						
	No.	No.	\$	\$	\$	\$
11 Planing mills, sash and door factories.....	21	329	472,483	932,547	786,353	1,748,820
12 Aerated and mineral waters.....	19	136	224,635	441,607	693,023	1,171,523
13 All other leading industries <sup>1</sup> .....	4	549	1,096,048	19,384,395	955,547	21,068,993
Totals, Leading Industries.....	777	10,042	15,039,846	122,128,862	33,279,554	158,442,882
Totals, All Industries.....	955	11,957	17,956,317	126,595,761	38,459,630	168,356,619
ALBERTA						
	No.	No.	\$	\$	\$	\$
1 Slaughtering and meat packing.....	11	3,559	6,119,527	64,719,860	12,090,525	77,190,577
2 Flour and feed mills.....	71	997	1,652,265	28,029,445	5,510,912	33,812,288
3 Petroleum products.....	4	595	1,194,612	14,732,788	4,608,999	19,941,937
4 Butter and cheese.....	107	1,525	2,169,841	14,031,563	4,029,407	18,323,114
5 Breweries.....	5	574	1,059,556	1,955,280	8,058,924	10,105,964
6 Sawmills.....	426	2,334	2,265,924	4,445,778	4,737,109	9,383,450
7 Bread and other bakery products	123	1,398	2,028,022	4,063,777	4,205,283	8,412,187
8 Planing mills, sash and door factories.....	47	954	1,390,773	4,023,300	2,853,537	6,944,471
9 Railway rolling-stock.....	3	1,489	3,071,140	2,320,749	3,033,295	5,519,901
10 Printing and publishing.....	83	918	1,566,247	727,715	3,333,541	4,109,470
11 Feeds, stock and poultry.....	24	264	386,138	3,221,210	725,580	3,983,201
12 Clothing, men's factory.....	7	529	682,798	1,713,253	1,346,753	3,069,018
13 Fruit and vegetable preparations.....	8	257	330,536	1,569,228	1,198,787	2,792,802
14 Miscellaneous foods.....	15	116	135,384	1,389,777	1,155,660	2,555,259
15 Glass products.....	3	421	646,920	1,069,579	1,331,260	2,461,508
16 Castings, iron.....	10	543	893,085	735,446	1,309,834	2,080,892
17 Printing and bookbinding.....	63	568	943,997	587,181	1,417,112	2,026,550
18 Clay products, from domestic clay	11	745	874,431	41,152	1,713,843	1,808,971
19 Machine shops.....	29	341	630,519	482,482	971,266	1,474,330
20 Boxes, wooden.....	7	261	396,660	703,686	662,893	1,381,022
21 Aerated and mineral waters.....	18	172	283,455	450,144	881,536	1,363,029
22 Biscuits, confectionery, cocoa, etc.	9	171	211,757	501,870	614,690	1,124,968
23 Furniture.....	35	267	342,085	525,981	561,225	1,097,631
24 All other leading industries <sup>1</sup> .....	10	1,421	2,426,376	11,478,825	10,200,865	22,718,793
Totals, Leading Industries.....	1,129	20,419	31,702,048	163,520,069	76,552,836	243,651,333
Totals, All Industries.....	1,315	22,649	34,939,088	169,425,176	83,735,011	257,031,867

<sup>1</sup> Other leading industries, individual statistics for which cannot be given because there are fewer than three establishments in each industry are: Manitoba, non-ferrous metal smelting and refining and pulp and paper; Saskatchewan, non-ferrous metal smelting and refining, cotton and jute bags, and wood preservation; Alberta, cement, wood preservation, malt and malt products, sugar refineries, processed cheese, fertilizers, and bridge and structural steel.

## Subsection 5.—The Manufactures of British Columbia, 1946

British Columbia with a gross value of production of \$644,527,898 in 1946 was again the third most important manufacturing province in Canada. About 20 p.c. of this amount was contributed by the sawmilling industry. Shipbuilding was in fourth place, having occupied first place during the war years. At the height of its productive effort in 1943 this industry employed 31,238 persons, paid \$64,939,484 in salaries and wages, and the value of production reached the unprecedented figure of \$155,536,396. In 1946 the shipbuilding industry was still the second largest employer of labour and paid out the second highest amount in salaries and wages. Emphasizing the importance of the forests in the industrial life of the Province, the sawmilling industry ranked first in 1946 with a gross value of production of \$130,433,625, and the pulp and paper industry third with \$42,030,596; second in importance was fish-curing and -packing, based principally on the estuarial salmon

fisheries. British Columbia accounted for 43 p.c. of the total production of this industry in Canada. Other important industries are: shipbuilding, slaughtering and meat packing, fruit and vegetable preparations, fertilizers, butter and cheese, petroleum products, veneer and plywood, etc. The varied resources of the Pacific Coast have resulted in a wide diversification of its manufactures.

### 7.—Statistics of the Leading Industries of the Province of British Columbia, 1946

	Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials Used	Net Value of Products	Gross Value of Products
		No.	No.	\$	\$	\$	\$
1	Sawmills.....	858	18,600	32,109,406	64,956,039	64,385,778	130,433,625
2	Fish-curing and -packing.....	73	3,630	6,166,172	27,832,916	14,962,918	43,256,957
3	Pulp and paper.....	7	4,147	10,087,386	15,725,048	23,576,986	42,030,596
4	Shipbuilding.....	23	6,259	13,664,846	5,062,216	26,260,513	31,680,612
5	Slaughtering and meat packing...	10	1,263	2,404,417	23,708,635	4,178,823	28,087,775
6	Fruit and vegetable preparations.	73	2,246	2,912,936	14,774,100	6,255,984	21,269,911
7	Fertilizers.....	5	983	2,441,298	6,137,395	12,642,183	20,623,774
8	Butter and cheese.....	34	1,444	2,523,122	11,003,378	5,475,241	16,793,945
9	Petroleum products.....	5	446	985,391	11,182,019	3,420,619	15,206,344
10	Veneer and plywood.....	9	2,177	3,649,437	5,948,470	8,574,888	14,677,940
11	Bread and other bakery products	261	2,728	4,163,533	6,442,441	7,136,506	13,914,412
12	Foods, miscellaneous.....	35	604	775,336	10,996,273	1,990,310	13,036,653
13	Sheet metal products.....	22	899	1,690,518	7,026,790	4,018,399	11,136,133
14	Breweries.....	11	701	1,451,721	1,629,077	8,986,043	10,754,368
15	Machinery.....	33	2,050	4,205,852	3,180,641	6,444,700	9,758,602
16	All other leading industries <sup>1</sup> .....	3	4,065	8,811,862	46,077,394	22,276,191	71,542,002
	<b>Totals, Leading Industries.</b>	<b>1,462</b>	<b>52,242</b>	<b>98,043,233</b>	<b>261,682,832</b>	<b>220,586,082</b>	<b>494,203,649</b>
	<b>Totals, All Industries.....</b>	<b>2,731</b>	<b>75,484</b>	<b>137,506,645</b>	<b>335,708,533</b>	<b>293,352,652</b>	<b>644,527,898</b>

<sup>1</sup> Includes distilleries and non-ferrous metal smelting.

## Section 2.—Manufacturing Industries in Urban Centres

The prosperity of most of the cities and towns of Canada, especially in the east, is intimately connected with their manufacturing industries, which provide employment for a large proportion of their gainfully occupied population. In the west the cities are more largely distributing centres, though manufactures are rapidly increasing.

Table 8 indicates the extent to which the manufacturing industries of Canada are concentrated in urban centres. It shows by provinces the proportion of the gross manufacturing production contributed by urban centres having a gross production of over \$1,000,000 each. In the more highly industrialized provinces of Ontario and Quebec such cities and towns in 1946 accounted for 94 p.c. and 92 p.c., respectively, of the totals for those provinces, while in the Maritime Provinces and British Columbia, where sawmilling, fish-packing, and dairying are leading industries, the proportions fell to 67 p.c. and 66 p.c. respectively. In the Prairie Provinces manufacturing is confined largely to a few urban centres.

**8.—Cities and Towns each with a Gross Manufacturing Production of over \$1,000,000, Number of Establishments and Total Production in such Urban Centres as a Percentage of the Grand Total, by Provinces, 1946.**

Note.—Statistics published in this table are in some cases higher than the figures published in Table 11, since, in the table below are included statistics of towns with less than three establishments and production of over \$1,000,000 each. It was not possible to publish this information, except in summary form, in Table 11 without disclosing the operations of individual establishments.

Province or Territory	Urban Centres with a Gross Production of over \$1,000,000 each	Establishments Reporting in Urban Centres Producing over \$1,000,000 each	Total Production in Urban Centres Producing over \$1,000,000 each	Total Production in each Province	Production in Urban Centres as a Percentage of Total Production in each Province
	No.	No.	\$	\$	p.c.
Prince Edward Island.....	2	55	4,493,917	11,200,310	40.1
Nova Scotia.....	21	410	119,506,017	178,793,420	66.8
New Brunswick.....	14	303	118,007,712	170,753,741	69.1
Quebec.....	114	6,206	2,303,800,205	2,497,971,521	92.2
Ontario.....	157	9,088	3,514,149,230	3,754,623,701	93.6
Manitoba.....	6	869	311,994,908	351,887,099	88.7
Saskatchewan.....	7	313	131,244,741	168,356,619	78.0
Alberta.....	9	559	217,273,827	257,031,867	84.5
British Columbia.....	16	1,701	426,181,134	644,527,898	66.1
Yukon and Northwest Territories....	—	—	—	646,295	—
<b>Canada.....</b>	<b>346</b>	<b>19,504</b>	<b>7,146,651,691</b>	<b>8,035,692,471</b>	<b>88.9</b>

**9.—Principal Statistics of the Manufacturing Industries of the Six Leading Manufacturing Cities of Canada, 1933-46**

Note.—The dyeing, cleaning and laundry industry is included for the years prior to 1936.

City and Year	Establishments	Capital	Employees	Salaries and Wages	Cost of Materials	Gross Value of Products <sup>1</sup>
	No.	\$	No.	\$	\$	\$
Montreal.....1933	2,226	363,342,078	80,212	74,150,933	148,504,215	300,636,197
1937	2,474	415,816,451	105,931	112,652,112	281,407,645	511,481,054
1939	2,501	423,234,648	105,315	114,602,118	254,188,246	483,246,583
1940	2,519	475,575,804	118,774	138,118,813	334,350,566	604,806,394
1941	2,669	556,538,023	147,917	187,239,445	444,557,884	803,685,931
1942	3,007	629,809,985	169,987	240,888,491	541,625,660	976,767,738
1943	2,992	721,223,427	194,643	307,922,631	665,209,935	1,184,114,458
1944	3,109	2	185,708	308,396,358	650,618,563	1,215,988,014
1945	3,404	2	181,679	304,247,761	600,919,272	1,144,175,108
1946	3,785	2	173,507	291,381,617	602,667,823	1,147,945,303
Toronto.....1933	2,604	388,995,096	75,645	80,855,383	146,286,472	308,983,639
1937	2,797	423,350,508	96,247	115,520,050	247,422,098	475,470,149
1939	2,885	447,009,768	98,702	122,553,435	240,532,281	482,532,331
1940	2,911	500,559,305	112,136	145,538,148	306,675,426	595,913,172
1941	3,045	554,317,600	133,099	184,267,132	391,328,916	756,923,939
1942	3,211	635,981,329	151,639	228,875,152	451,198,158	886,256,494
1943	3,238	647,907,281	156,459	259,307,913	481,504,056	961,923,997
1944	3,344	2	154,538	260,776,613	513,429,109	1,020,345,353
1945	3,482	2	146,335	244,055,112	496,204,721	961,736,716
1946	3,632	2	145,556	247,298,288	549,256,912	1,036,939,790
Hamilton.....1933	469	171,625,714	21,524	21,523,337	35,672,272	83,530,255
1937	479	182,730,036	32,616	40,255,040	83,978,873	170,651,205
1939	461	206,584,330	31,512	39,563,423	70,829,034	152,746,340
1940	474	230,821,923	39,081	54,139,253	106,595,186	212,587,274
1941	491	255,862,917	45,421	72,845,604	136,403,197	283,670,019
1942	482	273,212,977	50,744	85,111,817	166,078,144	347,752,196
1943	485	315,896,136	54,671	95,576,332	164,271,139	362,743,019
1944	480	2	53,500	94,982,915	171,117,467	363,033,672
1945	482	2	50,520	89,639,262	166,349,884	351,676,308
1946	501	2	45,951	80,959,432	150,977,835	308,033,098

For footnotes, see end of table, p. 642.



**9.—Principal Statistics of the Manufacturing Industries of the Six Leading Manufacturing Cities of Canada, 1933-46—concluded**

City and Year	Estab-lish-ments	Capital	Em-ployees	Salaries and Wages	Cost of Materials	Gross Value of Products <sup>1</sup>
	No.	\$	No.	\$	\$	\$
Windsor.....1933	247	66,398,372	10,212	10,719,819	25,752,258	49,359,245
1937	228	77,750,511	18,650	26,919,449	78,667,058	136,896,194
1939	222	80,436,233	17,729	25,938,890	63,907,106	122,474,320
1940	215	102,896,682	20,916	37,260,970	112,991,063	194,174,159
1941	223	138,929,934	29,486	57,653,986	175,847,231	289,027,790
1942	233	206,556,146	37,057	76,276,589	240,384,518	383,323,548
1943	229	206,850,571	38,516	85,965,874	247,504,385	417,745,229
1944	231	"	35,912	80,667,573	232,102,240	387,603,874
1945	241	"	28,826	63,515,050	167,675,110	280,743,622
1946	256	"	30,889	60,315,436	138,788,813	244,925,148
Vancouver.....1933	746	74,209,271	12,094	11,754,124	28,588,106	55,160,883
1937	824	85,851,189	17,641	20,783,032	53,139,109	95,717,017
1939	829	92,797,032	17,957	22,882,192	56,565,511	101,267,243
1940	849	101,429,495	20,767	26,502,084	70,468,864	120,981,388
1941	864	115,960,608	25,223	34,132,996	90,720,812	162,982,858
1942	897	136,336,017	37,858	60,779,827	116,153,100	223,295,187
1943	898	193,795,910	45,971	81,059,815	130,442,455	288,196,900
1944	933	"	43,473	79,141,407	142,416,371	289,390,718
1945	992	"	37,599	66,144,015	137,118,244	265,034,773
1946	1,071	"	31,408	55,960,984	138,045,068	270,165,166
Winnipeg.....1933	600	73,886,398	15,336	15,155,537	28,355,612	50,287,280
1937	622	72,419,041	17,284	19,687,511	45,498,865	80,108,696
1939	648	73,255,368	17,571	20,717,273	44,873,043	81,024,272
1940	657	79,684,791	19,026	22,673,057	56,496,847	98,266,933
1941	677	105,406,381	23,831	30,169,726	73,427,543	127,913,351
1942	692	113,297,399	27,768	38,191,886	88,897,218	156,332,353
1943	688	100,511,565	24,898	35,807,283	106,485,838	174,523,234
1944	686	"	25,870	38,824,299	119,917,745	198,169,626
1945	716	"	26,206	40,115,513	117,453,819	197,523,922
1946	756	"	26,730	42,354,650	121,531,306	206,381,007

<sup>1</sup> Net value is derived from gross value by deducting cost of materials, fuel, and electricity. For cost of fuel and electricity in 1946 see Table 11.

<sup>2</sup> Information not collected.

**10.—Principal Statistics of the Manufacturing Industries Located in the Metropolitan Areas of the Six Leading Manufacturing Cities of Canada, 1946**

Metropolitan Area	Estab-lish-ments	Em-ployees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products
	No.	No.	\$	\$	\$	\$
Greater Montreal.....	4,091	198,727	336,797,930	22,405,459	719,070,298	1,372,324,196
Greater Toronto.....	3,869	165,306	284,589,556	14,498,304	620,522,748	1,188,751,064
Greater Hamilton.....	519	46,207	81,250,537	10,473,653	152,435,152	310,162,659
Greater Windsor.....	271	31,389	61,054,904	3,852,238	140,481,023	248,014,993
Greater Winnipeg.....	843	31,559	50,712,288	3,926,520	187,190,503	293,667,033
Greater Vancouver.....	1,258	41,937	75,978,729	4,410,604	174,850,440	349,659,149



# 11.—Statistics of Manufactures of Municipalities, each with a Gross Production of \$1,000,000 or Over, and with Three or More Establishments, 1946

NOTE.—Statistics for cities and towns with three or more establishments cannot be published when one establishment has 75 p.c. or two establishments 90 p.c. of the total production.

Province and Municipality	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products <sup>1</sup>
	No.	No.	\$	\$	\$	\$
<b>Prince Edward Island—</b>						
Charlottetown.....	36	479	621,239	49,056	1,323,447	2,467,096
Summerside.....	19	281	335,135	29,426	1,326,376	2,026,821
<b>Nova Scotia—</b>						
Amherst.....	24	753	1,109,465	146,896	1,497,885	3,374,599
Berwick.....	9	231	232,691	59,888	907,753	1,391,410
Bridgetown.....	7	193	257,807	26,773	638,222	1,236,494
Dartmouth.....	15	221	327,309	34,479	606,168	1,313,329
Digby.....	10	388	411,753	17,214	1,170,817	1,868,664
Glace Bay.....	13	197	221,329	20,795	627,751	1,104,749
Halifax.....	111	6,588	10,977,976	566,034	18,970,609	39,372,485
Kentville.....	9	277	286,736	44,865	659,484	1,284,953
Lockeport.....	3	273	372,021	32,109	1,231,705	1,992,290
Lunenburg.....	17	624	958,410	72,307	3,102,240	4,830,785
Middleton.....	9	276	339,404	40,800	1,058,100	1,749,178
New Glasgow.....	28	708	1,059,574	154,576	1,081,515	3,113,060
North Sydney.....	12	349	530,289	32,619	2,079,281	3,006,137
Pictou.....	10	985	1,360,745	103,098	2,322,072	4,435,443
Sydney.....	43	5,556	9,698,617	2,420,719	14,994,767	27,190,281
Truro.....	35	1,444	1,643,135	131,804	4,140,299	8,150,110
Windsor.....	10	337	350,289	32,912	1,638,903	2,299,189
Yarmouth.....	29	513	543,211	57,516	1,870,589	3,085,387
<b>New Brunswick—</b>						
Campbellton.....	13	284	357,894	26,812	592,395	1,180,294
Fredericton.....	35	791	1,033,316	100,716	2,699,557	4,933,570
Moncton.....	50	3,197	5,155,467	348,965	7,133,130	14,708,695
Newcastle.....	15	318	327,836	18,937	1,120,723	1,662,164
Sackville.....	7	669	1,064,552	59,163	1,978,922	2,861,758
Saint John.....	114	4,084	6,191,742	827,447	31,255,951	45,180,815
St. Stephen.....	12	417	501,449	52,682	1,444,050	2,491,375
Sussex.....	16	256	330,593	14,917	1,310,935	2,067,863
<b>Quebec—</b>						
Acton Vale.....	14	814	1,046,510	60,964	1,767,988	3,610,784
Asbestos.....	13	544	830,891	196,843	2,718,370	4,458,253
Beauharnois.....	13	1,115	2,059,981	552,041	3,676,300	8,102,603
Bedford.....	11	714	890,435	35,282	496,464	2,935,743
Beebe Plain.....	6	224	271,633	16,366	622,736	1,097,527
Berthier.....	17	804	928,213	138,688	1,983,150	4,530,700
Brownsburg.....	6	1,018	1,644,782	66,836	2,061,383	5,483,316
Buckingham.....	13	874	1,738,142	619,177	2,946,322	9,028,773
Cabano.....	6	281	353,945	4,678	734,896	1,227,763
Cap-de-la-Madeleine.....	28	1,118	1,464,900	189,433	2,470,386	4,318,514
Chambly Canton.....	7	432	618,878	84,385	717,970	1,808,445
Chicoutimi.....	24	439	591,100	40,057	1,049,079	2,000,862
Coaticook.....	23	1,013	1,215,191	86,042	2,820,992	4,934,945
Contrecoeur.....	9	279	324,326	10,143	704,575	1,188,023
Cookshire.....	8	172	223,823	14,563	590,060	1,247,169
Danville.....	12	179	218,035	67,427	658,080	1,062,732
Drummondville.....	31	7,323	10,541,263	1,111,750	10,974,215	32,131,739
Farnham.....	16	853	1,135,057	122,010	2,212,748	4,627,111
Granby.....	57	4,988	6,567,427	370,825	15,924,148	32,109,528
Grand Mère.....	28	2,082	3,107,997	929,758	7,654,714	17,105,494
Hull.....	54	3,024	4,859,811	1,148,436	13,401,574	22,860,498
Iberville.....	18	403	442,888	31,015	1,115,503	2,073,483
Joliette.....	49	1,801	2,213,971	251,881	4,913,188	8,789,511
Jonquière.....	15	466	856,706	160,622	2,187,283	3,976,591
Lachine.....	47	7,029	13,730,075	765,276	13,228,402	35,658,189
Lachute.....	8	214	309,949	75,560	728,539	1,179,439
La Pêrade (Ste Anne de).....	11	245	266,584	59,973	1,939,523	2,555,544
La Prairie.....	19	686	1,074,254	454,125	704,201	3,203,830
La Salle.....	22	2,107	3,527,172	552,774	14,404,923	30,136,447
La Sarre.....	14	176	246,666	9,634	560,659	1,085,890
L'Assomption.....	12	390	460,409	15,458	806,617	1,761,117
Lennoxville.....	9	433	563,685	115,923	1,125,632	2,518,386
L'Épiphanie.....	14	402	423,575	22,049	482,916	1,306,905
Lévis.....	30	517	595,637	33,369	1,897,699	3,086,970
Longueuil.....	31	1,850	3,414,671	148,681	3,848,767	8,377,628
Loretteville.....	31	911	846,124	19,345	1,852,696	3,293,892
Louiseville.....	20	1,067	1,244,933	40,221	2,529,225	5,204,049
Maniwaki.....	17	215	240,405	14,139	797,482	1,225,591

<sup>1</sup>Net value is derived from gross value by deducting the cost of materials, fuel and electricity.

# 11.—Statistics of Manufactures of Municipalities, each with a Gross Production of \$1,000,000 or Over, and with Three or More Establishments, 1946—continued

Province and Municipality	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products <sup>1</sup>
	No.	No.	\$	\$	\$	\$
<b>Quebec—concluded—</b>						
Marieville.....	17	593	653,477	37,970	2,160,365	3,684,284
Matane.....	15	268	410,828	4,924	991,732	1,654,994
Mégantic (Lac).....	16	491	588,610	17,117	427,782	1,190,287
Mont Laurier.....	10	184	200,650	11,279	690,108	1,218,063
Montmagny.....	34	1,411	1,698,584	92,006	3,219,370	7,020,997
Montreal.....	3,785	173,507	291,381,617	14,740,538	602,667,823	1,147,945,303
Montreal East.....	19	3,310	6,315,770	4,909,747	87,019,461	119,265,339
Nicolet.....	15	419	454,838	21,714	900,049	2,040,786
Outremont.....	16	929	1,666,110	66,397	4,340,873	8,707,601
Plessisville.....	16	760	995,712	50,251	1,286,063	2,653,702
Pointe aux Trembles.....	12	409	597,310	36,196	1,074,117	2,514,029
Pont Rouge.....	12	397	521,740	163,948	1,869,391	3,889,999
Portneuf Station.....	11	168	206,554	49,710	853,318	1,512,090
Princeville.....	13	388	465,077	35,089	2,437,406	3,097,531
Quebec.....	354	12,632	17,321,159	2,505,828	42,162,036	79,105,064
Richmond.....	11	556	670,443	27,989	1,356,365	3,100,328
Rimouski.....	20	637	946,607	30,771	2,286,974	4,106,188
Rivière du Loup.....	20	416	628,224	83,637	410,606	1,314,926
Roberval.....	9	159	166,935	8,028	646,225	1,185,976
Rock Island.....	12	689	1,280,238	61,383	1,089,734	3,679,186
St. Césaire.....	27	322	328,873	20,987	891,783	1,416,178
St. Félicien.....	12	190	292,066	16,034	1,207,725	1,689,860
St. Georges Est.....	11	393	497,150	48,866	762,629	1,582,309
St. Hyacinthe.....	70	5,132	6,458,977	388,732	14,609,880	27,186,183
St. Jean.....	58	4,664	6,833,411	564,645	10,096,785	23,137,839
St. Jérôme (Terrebonne).....	38	4,003	5,455,831	371,132	7,851,036	18,395,298
St. Lambert.....	17	678	968,794	62,327	1,894,510	4,396,791
St. Laurent.....	19	2,962	4,872,675	438,750	9,367,784	18,506,063
St. Marie.....	17	376	385,414	17,912	994,270	1,562,642
St. Pie.....	12	209	244,177	16,946	1,204,335	1,665,679
St. Pierre.....	10	1,899	3,829,312	594,632	3,085,926	8,054,629
St. Rémi.....	12	335	373,412	31,045	1,447,675	2,541,059
St. Thérèse de Blainville.....	28	1,200	1,607,933	75,075	2,242,065	5,072,097
St. Tite.....	22	387	408,279	17,622	904,983	1,682,240
Sayabec (Saindon).....	7	203	256,078	1,069	1,602,935	2,081,123
Shawinigan Falls.....	40	4,726	9,177,858	4,273,662	17,478,687	47,337,924
Sherbrooke.....	95	8,038	11,824,950	786,909	19,606,332	42,192,156
Sorel.....	34	1,531	2,300,080	486,193	2,268,415	4,750,864
Terrebonne.....	15	479	723,672	26,947	1,273,873	2,530,000
Thetford Mines.....	23	307	399,785	42,618	371,250	1,091,964
Three Rivers.....	78	6,937	11,910,787	4,986,150	29,225,498	63,281,372
Thurso.....	10	220	311,280	7,865	807,260	1,085,952
Trois Pistoles.....	15	234	333,249	10,644	1,948,903	2,692,159
Valleyfield.....	46	3,176	4,483,338	440,272	7,018,153	14,487,194
Verdun.....	45	713	998,796	29,400	1,885,923	3,765,633
Victoriaville.....	40	2,069	2,652,471	90,588	5,075,499	9,403,792
Warwick.....	13	375	515,713	55,838	1,475,515	2,698,926
Waterloo.....	16	718	991,856	67,801	1,792,294	4,139,776
Westmount.....	15	1,665	3,160,990	242,215	4,358,500	11,479,698
Windsor (Mills).....	8	904	1,698,452	562,469	4,232,522	9,151,995
<b>Ontario—</b>						
Acton.....	19	1,098	1,550,109	175,214	7,133,720	11,187,146
Almonte.....	15	406	539,442	59,909	2,035,879	3,087,498
Amherstburg.....	10	660	1,219,232	839,128	1,725,942	6,556,953
Armstrong.....	15	578	840,691	73,236	1,514,884	3,126,729
Aurora.....	9	496	795,546	46,810	3,173,205	5,377,362
Aylmer (West).....	12	332	425,729	78,258	4,125,331	5,054,344
Barrie.....	20	798	1,110,100	86,346	4,880,554	6,945,928
Belleville.....	44	2,000	3,010,139	554,013	4,114,666	11,280,588
Bloomfield.....	9	163	187,206	20,157	997,159	1,541,812
Bowmanville.....	14	832	1,378,812	121,546	2,745,319	6,430,907
Brampton.....	24	940	1,474,484	68,838	2,894,357	5,559,854
Brantford.....	129	12,335	21,557,001	1,124,390	31,160,887	67,916,850
Brighton.....	14	246	313,475	17,245	952,430	1,720,431
Brockville.....	36	1,638	2,521,721	239,495	10,850,108	17,540,969
Burlington.....	9	302	464,220	57,802	2,043,917	3,104,738
Caledonia.....	10	395	512,836	165,334	1,769,295	3,860,361
Campbellford.....	14	362	466,685	45,994	1,573,786	2,553,340
Carleton Place.....	9	834	1,173,345	85,795	1,633,439	3,757,347
Chatham.....	64	2,729	4,741,276	585,800	24,280,917	34,126,774
Chesley.....	11	303	434,387	26,602	904,890	1,544,523

<sup>1</sup>Net value is derived from gross value by deducting the cost of materials, fuel and electricity.

## 11.—Statistics of Manufactures of Municipalities, each with a Gross Production of \$1,000,000 or Over, and with Three or More Establishments, 1946—continued

Province and Municipality	Establishments	Employees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products <sup>1</sup>
	No.	No.	\$	\$	\$	\$
<b>Ontario—continued</b>						
Cobourg.....	29	722	1,036,497	120,564	2,221,629	4,695,008
Collingwood.....	20	963	1,523,708	64,971	1,693,356	3,706,237
Cornwall.....	46	5,799	8,997,987	1,983,764	13,221,601	31,266,189
Dryden.....	14	573	954,959	179,505	1,928,692	4,125,436
Dundas.....	28	1,408	2,376,724	104,967	1,907,024	5,832,868
Dunnville.....	20	821	1,133,720	68,523	3,213,539	5,255,478
Durham.....	16	309	409,408	40,041	741,851	1,397,130
Eastview.....	11	357	532,585	61,028	2,676,201	3,833,425
Elmira.....	20	860	1,339,166	97,226	2,878,097	5,947,609
Elora.....	8	336	482,852	20,531	535,387	1,324,474
Essex.....	12	391	455,912	49,024	1,226,308	2,317,786
Exeter.....	8	130	151,877	22,735	675,565	1,060,704
Forest.....	13	187	249,597	28,314	862,161	1,433,818
Fort Erie.....	18	825	1,601,544	56,376	1,737,401	4,714,215
Fort William.....	54	3,221	6,813,748	1,792,412	14,242,499	31,288,572
Galt.....	76	6,224	9,031,587	485,820	12,171,036	27,982,961
Gananoque.....	14	849	1,351,369	136,390	2,061,130	4,375,021
Georgetown.....	15	932	1,927,256	169,563	3,007,697	5,826,964
Goderich.....	19	569	833,239	234,903	6,445,247	8,495,160
Gravenhurst.....	8	427	567,946	15,584	1,028,037	2,075,615
Grimsby.....	19	561	726,024	39,885	1,256,072	2,592,562
Guelph.....	59	5,703	8,887,830	582,306	15,539,932	31,580,144
Hamilton.....	901	45,951	80,959,432	10,434,888	150,977,835	308,033,098
Hanover.....	16	1,045	1,370,539	48,340	2,441,910	4,906,395
Harrow.....	5	91	140,080	21,257	913,877	1,492,272
Hespeler.....	16	1,821	2,298,708	179,643	5,231,876	9,180,783
Humberstone.....	12	797	1,185,668	67,904	6,583,519	9,103,113
Huntsville.....	17	467	664,932	52,672	3,024,907	4,785,628
Ingersoll.....	21	1,310	2,067,357	144,681	5,120,821	9,239,863
Kincardine.....	14	514	614,396	41,498	1,142,139	2,403,552
Kingston.....	52	5,286	9,113,140	849,802	15,453,614	37,196,109
Kingsville.....	12	282	399,605	26,994	5,279,428	5,937,017
Kitchener.....	174	13,403	21,857,339	1,096,646	50,036,593	94,435,211
Leamington.....	12	1,346	1,808,185	228,230	12,406,247	21,269,297
Leaside.....	49	5,712	10,731,977	439,060	19,011,450	39,627,683
Lindsay.....	35	870	1,024,032	154,006	2,715,376	4,736,932
Listowel.....	17	517	700,249	78,601	2,061,154	4,160,371
London.....	262	14,363	23,294,463	1,277,134	41,367,477	90,645,465
Long Branch.....	23	564	1,067,809	36,858	1,263,851	3,503,123
Lucknow.....	10	145	172,401	25,069	947,453	1,243,343
Meaford.....	18	389	486,905	37,263	935,135	1,772,803
Merrittton.....	15	1,739	3,215,434	593,356	7,664,896	13,597,406
Midland.....	19	706	1,083,947	60,313	2,828,884	5,421,744
Milton.....	12	530	845,705	237,093	1,099,240	3,539,659
Mimico.....	19	235	348,517	49,558	487,332	1,224,915
Napamoo.....	15	384	527,205	70,182	828,916	1,948,868
Napanee.....	12	262	304,139	23,362	792,525	1,412,180
New Hamburg.....	16	573	732,438	32,247	1,580,214	2,788,699
New Liskeard.....	14	871	1,356,801	97,702	3,903,376	6,656,630
Newmarket.....	27	6,073	11,927,307	965,694	33,373,038	67,273,672
New Toronto.....	68	6,384	11,928,948	4,448,859	21,572,309	56,205,826
Niagara Falls.....	22	451	734,864	64,348	1,524,834	3,052,614
North Bay.....	7	114	111,269	17,090	916,902	1,230,984
Norwich.....	29	899	1,400,824	72,941	2,768,918	5,968,966
Oakville.....	14	244	296,342	24,473	1,106,226	1,811,802
Orangeville.....	38	1,967	2,729,476	168,916	3,061,062	8,173,429
Orillia.....	36	7,245	14,219,413	860,255	39,745,853	62,343,434
Oshawa.....	206	9,491	15,628,589	1,153,247	22,944,683	53,313,353
Ottawa.....	47	3,180	4,672,735	253,862	5,235,043	12,511,749
Owen Sound.....	22	1,246	1,627,664	97,274	3,331,354	6,554,377
Paris.....	39	1,501	1,886,145	114,422	3,434,300	7,106,239
Pembroke.....	12	478	624,220	29,848	825,699	1,490,739
Pentanguishene.....	18	875	1,173,933	74,613	2,647,338	5,755,588
Peterborough.....	87	9,422	15,744,199	894,453	47,562,873	79,104,803
Pictou.....	16	187	201,456	19,341	644,778	1,040,931
Port Arthur.....	39	2,041	4,427,788	1,034,279	6,311,763	16,053,627
Port Colborne.....	20	2,494	4,757,094	1,830,798	61,347,494	89,690,336
Port Dalhousie.....	6	171	254,138	11,262	442,331	1,058,795
Port Elgin.....	7	226	383,348	11,451	534,301	1,048,518
Port Hope.....	21	973	1,691,698	138,349	2,266,983	6,144,653
Prescott.....	15	592	730,333	25,438	736,171	2,212,569
Preston.....	33	2,481	3,862,998	165,088	5,799,894	12,238,295
Renfrew.....	23	942	1,390,138	111,251	2,682,455	5,442,855

<sup>1</sup>Net value is derived from gross value by deducting the cost of materials, fuel and electricity.



**11.—Statistics of Manufactures of Municipalities, each with a Gross Production of \$1,000,000 or Over, and with Three or More Establishments, 1946—concluded**

Province and Municipality	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products <sup>1</sup>
	No.	No.	\$	\$	\$	\$
<b>Ontario—concluded</b>						
Ridgetown.....	10	205	284,585	13,707	644,904	1,286,588
St. Catharines.....	98	9,038	15,828,555	935,144	22,543,859	49,583,479
St. Mary's.....	19	612	885,197	688,870	2,599,986	5,653,028
St. Thomas.....	42	1,522	2,263,876	143,052	4,017,285	8,443,162
Sarnia.....	44	6,377	12,682,500	5,299,709	49,122,289	89,099,183
Sault Ste. Marie.....	47	5,078	10,581,713	3,570,923	26,414,688	49,637,254
Seaforth.....	13	224	312,824	26,079	2,047,638	2,627,782
Simcoe.....	25	1,385	2,053,585	155,962	11,749,199	18,201,073
Sioux Lookout.....	6	91	124,729	19,747	872,810	1,061,987
Smiths Falls.....	19	1,255	1,860,632	93,471	2,067,282	4,214,365
Southampton.....	5	305	506,503	19,657	637,729	1,484,001
Stratford.....	59	3,559	5,817,925	268,467	9,027,875	17,380,603
Strathroy.....	21	578	659,903	41,221	2,129,633	3,607,969
Streetsville.....	9	147	255,022	50,877	2,189,244	2,651,554
Sudbury.....	43	866	1,315,208	106,807	3,575,462	6,347,058
Swansea.....	6	689	1,155,390	142,154	1,542,259	3,792,658
Tavistock.....	12	196	246,570	23,376	1,612,317	2,044,202
Thorold.....	23	2,078	4,855,147	2,270,718	11,249,661	23,379,223
Tilbury.....	10	344	537,825	91,136	769,415	1,705,458
Tillsonburg.....	20	584	845,665	95,179	6,183,616	8,381,968
Timmins.....	25	487	720,257	55,163	1,193,487	2,996,599
Toronto.....	3,632	145,556	247,298,288	12,238,707	549,256,912	1,036,939,790
Trenton.....	24	1,477	1,971,423	327,601	6,570,330	11,460,243
Walkerton.....	16	491	621,929	24,296	900,952	1,950,211
Wallaceburg.....	22	2,315	3,744,751	587,542	4,143,612	11,675,097
Waterloo.....	50	2,900	4,654,834	258,129	7,438,267	19,531,374
Welland.....	52	7,199	13,426,597	2,896,364	22,173,551	52,174,529
Wellington.....	9	171	182,136	43,618	900,740	1,490,296
West Lorne.....	8	171	192,234	13,239	902,386	1,562,542
Weston.....	42	2,079	3,444,067	199,569	4,357,251	10,358,489
Whitby.....	13	434	568,937	40,685	1,232,786	2,287,118
Windsor.....	256	30,889	60,315,436	3,748,979	138,788,813	244,925,148
Wingham.....	14	371	514,754	33,917	1,676,092	2,604,712
Woodbridge.....	6	226	313,918	80,480	1,185,152	1,068,024
Woodstock.....	63	3,310	4,732,778	334,762	10,790,571	20,453,182
<b>Manitoba—</b>						
Brandon.....	29	699	1,002,229	113,571	5,832,560	7,909,688
Portage la Prairie.....	13	196	214,542	23,880	837,764	1,271,045
St. Boniface.....	58	3,845	6,874,589	547,337	63,166,872	79,928,557
Selkirk.....	8	768	1,206,740	356,827	1,207,013	3,765,922
Transcona.....	5	2,259	4,316,835	312,510	6,835,616	12,738,689
Winnipeg.....	756	26,730	42,354,650	2,625,075	121,531,306	206,381,007
<b>Saskatchewan—</b>						
Melville.....	11	82	108,224	30,228	2,223,789	2,611,754
Moose Jaw.....	44	1,754	3,043,353	498,065	28,869,472	34,637,823
Prince Albert.....	29	1,062	1,699,851	156,682	9,702,434	14,155,338
Regina.....	114	2,914	4,838,623	921,706	22,038,050	35,979,895
Saskatoon.....	88	2,604	4,120,170	458,829	29,817,113	38,355,470
Swift Current.....	13	302	486,212	48,593	2,798,741	3,896,206
Yorkton.....	14	176	238,691	40,486	1,074,627	1,608,255
<b>Alberta—</b>						
Calgary.....	237	7,252	12,395,767	1,782,470	60,353,717	93,437,758
Camrose.....	9	72	98,453	12,829	778,431	1,111,010
Edmonton.....	217	7,555	12,492,254	743,087	62,052,678	88,865,778
Grande Prairie.....	17	162	237,880	26,365	708,564	1,241,176
Lethbridge.....	34	837	1,277,609	99,486	4,604,943	9,295,850
Medicine Hat.....	25	1,155	1,594,251	108,971	11,285,794	15,022,598
Red Deer.....	12	120	182,275	32,002	1,207,593	1,679,690
<b>British Columbia—</b>						
Cranbrook.....	19	277	514,553	36,853	918,292	1,749,614
Kamloops.....	24	282	397,522	22,740	563,527	1,216,814
Kelowna.....	29	684	896,623	83,665	2,784,015	4,561,398
Mission.....	18	315	444,421	36,797	2,804,040	3,712,402
Nanaimo.....	33	530	868,906	50,700	1,192,760	3,184,130
Nelson.....	27	303	438,379	47,379	772,104	1,806,412
New Westminster.....	107	5,475	9,637,072	621,729	25,639,612	50,475,572
North Vancouver.....	34	3,343	7,114,692	237,860	4,947,577	15,604,049
Port Alberni.....	15	1,130	2,161,422	14,087	4,325,168	9,758,944
Port Moody.....	5	411	803,848	4,787	1,620,576	3,185,637
Prince George.....	65	508	711,485	67,585	1,395,439	2,827,302
Prince Rupert.....	24	637	1,388,600	94,873	4,220,708	7,319,917
Vancouver.....	1,071	31,408	55,960,984	3,075,458	138,045,068	270,165,166
Vernon.....	32	376	559,315	70,585	1,188,020	2,191,694
Victoria.....	182	4,816	8,499,451	539,672	11,609,934	27,029,692

<sup>1</sup>Net value is derived from gross value by deducting the cost of materials, fuel and electricity.



## CHAPTER XVIII.—CONSTRUCTION

### CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

The purpose of this Chapter is to co-ordinate such official statistics on the construction industry as are available and to give, as far as possible, a complete picture of construction from year to year. Official statistics, although constantly undergoing improvement, have many gaps and it is necessary to try to bridge these by presenting data from outside sources. For instance, Section 3 carries official figures of building permits issued in leading cities. These figures are useful but have definite limitations and are supplemented by presenting data from outside sources. This Section also contains data from a private source on construction contracts awarded during specified years. These are in the nature of a forecast of the amount of construction work contemplated in a given year. It is usually some time after contracts are awarded that work actually starts and, in the case of contracts of large-scale undertakings, the work is seldom finished within one year.

On the other hand, the official statistics of the annual Census of Construction given in Section 4 cover work of all kinds actually completed in a given year but even the Census of Construction is not all-inclusive. Work done by farmers, which in the aggregate must be considerable, is not included nor is much of that done by railways and other public institutions. So far as the latter groups are concerned an attempt is made in Section 4 to calculate a net figure which, when added to the annual Census of Construction figure, will more nearly approximate total construction (except that done by farmers and other individuals for themselves).

### Section 1.—The Government and the Construction Industry

#### Subsection 1.—Public Contracts

Previous to the Second World War, Federal Government contracts were let and put into execution by the Department of Public Works. During the War, the Department of Munitions and Supply was organized to co-ordinate the industrial effort and arrange priority for such industries as were engaged in important war work. After 1946, the Department of Munitions and Supply gave place to the Department of Reconstruction and Supply and since that date Government reconstruction programs, so far as they concern construction projects, have been screened by this body which works in close co-operation in this matter with the Department of Public Works and other Federal Departments concerned. This ensures the initiation of only those new projects which do not interfere with more necessary construction in progress or contemplated, and where availability of labour and materials permits.

Following the Government's announcement in November, 1947, of stringent measures for the conservation of its dollar resources, all government departments have to report in detail to the Department of Reconstruction and Supply their probable purchases of materials, machinery or equipment from the United States.

**Trans-Canada Highway.\***—The Federal Government in December, 1948, invited all provinces to send representatives to attend a Trans-Canada Highway Conference at Ottawa. At this Conference, all provinces indicated they were in favour of the project.

Considerable progress was made in 1949 in preparing the ground generally for the introduction of federal legislation, and for the signing of the agreements with the provinces.

At present Canada is without a national coast-to-coast highway although 4,200 miles of road link together Halifax and Vancouver. Of the existing road approximately 60 p.c. is paved but much of that paving is below standard. The expansion of the Canadian economy has created an increasing need for a transcontinental all-weather road, the cost of which has been set at about \$300,000,000. Legislation passed in 1949 enables the Federal Government to provide the Provincial Governments in the next seven years with assistance to the amount of \$150,000,000 for the construction of the Highway. This legislation visualizes the Highway as extending beyond the Pacific mainland to Vancouver Island and from the Atlantic mainland to Cape Breton Island, Prince Edward Island and Newfoundland.

Technical data and other information were obtained about local conditions in each province and an outline of proposed standards and suggested terms of agreement was forwarded to all provinces, asking for assurance that they were prepared to co-operate in the project. These assurances were given.

A technical conference, attended by representatives of all provinces, met at Ottawa on Dec. 15-16, 1949, at which general agreement was reached respecting standards and specifications.

The Federal Government is also sharing the costs of highways already constructed which will be taken into the Highway plan, paying one-half of the total cost of construction of such highways. The federal contribution toward the Highway remaining to be completed will therefore be considerably more than the 50 p.c. set out in the enabling legislation. Payments for roads already constructed may be applied elsewhere in provincial highway systems as determined by the provinces to which the payments are made.

The Federal Government contribution will be limited to the two-lane standard. A paved surface of 22 ft. in the Eastern Provinces and 24 ft. west of the Great Lakes has been agreed on as standard, with a minimum right-of-way of 100 ft., wherever possible. Maximum curvature of 8° and maximum gradients of 6 p.c. have been decided on, together with sight distances horizontally and vertically of 600 ft. minimum.

The route will be approximately 5,000 miles in length, following the shortest practical east-west route and comprising a "first-class, hard-surfaced, two-lane highway". Except for those portions in National Parks, the Highway will become the property and responsibility of the provinces and will be constructed over routes which they have chosen and will be maintained by them.

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\* Prepared by H. G. Cochrane, Department of Reconstruction and Supply, Ottawa.

**Subsection 2.—Government Aid to Civil Housing\***

Canada's supply of adequate housing falls short of actual needs. While this condition undoubtedly existed prior to 1930, it was not widely recognized. With the general depression of economic activity through the period 1929-36, residential construction fell to such a low level that already-existing overcrowding and obsolescence were further aggravated. The high vacancy rate in these years, particularly for apartment dwellings, was a product not of an over-supply of dwellings, but of enforced 'doubling-up' of families whose incomes were not sufficient to provide separate living quarters.

The construction industry had not recovered from this slump when in 1939 war production began to drain off materials and labour required for wartime housing construction. During the war years, increased personal income allowed many families to expand into separate or larger dwelling units. These two factors, coupled with unprecedented high marriage rates during the war years and months immediately following, aggravated an already critical shortage of living quarters.

The tempo of total residential construction, including Government projects, has increased steadily in post-war years. During 1948, 81,243 new dwelling units were completed making a total of 276,516 units in the four years since the War. These figures include dwelling units added by conversion of existing structures.

**The Central Mortgage and Housing Corporation.**—To provide co-ordination in the housing field, the Central Mortgage and Housing Corporation was incorporated by an Act of Parliament (December, 1945). Briefly, its purpose and functions are: (1) to administer the National Housing Act, 1944, and earlier housing legislation; (2) to provide facilities for the rediscounting of mortgages by lending institutions; and (3) to administer the Emergency Shelter Regulations.

In 1947, the Corporation assumed supervision of the activities of Wartime Housing Limited, a Crown Company formed in 1941 (see pp. 582-583, 1947 Year Book).

During the years 1941-48, 38,126 new housing units were completed by Wartime Housing Limited and the Central Mortgage and Housing Corporation and an additional 2,158 were completed in the first quarter of 1949.

In September, 1947, the Corporation also became responsible for the management of Housing Enterprises of Canada, Limited, and its operating companies. Thus, by the end of 1947, the Central Mortgage and Housing Corporation was administering most of the housing activities of the Federal Government.

**Housing Legislation.**—Since 1935, the Federal Government has administered legislation designed to assist in the financing and improvement of housing in Canada. This commenced with the Dominion Housing Act, 1935 (see pp. 473-474, 1938 Year Book), and has been followed by the Home Improvement Loans Guarantee Act, 1937 (see pp. 370-371, 1941 Year Book), the National Housing Act, 1938 (see pp. 468-470, 1940 Year Book) and the National Housing Act, 1944.

\* Revised in the Special Surveys Division of the Dominion Bureau of Statistics.



The following table shows the number of loans made, and the amounts approved under the housing legislation passed since 1935.

### 1.—Loans Approved under Dominion Housing Legislation, by Provinces and Territories, 1935-48

NOTE.—This table is a combined statement of the net loans (cancellations and new loans) made under the Acts named in the preceding text.

Province or Territory	1935-41	1942	1943	1944	1945	1946	1947	1948	Total
LOANS									
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Prince Edward Island.....	18	—	—	—	—	4	10	35	67
Nova Scotia.....	728	14	4	6	59	100	248	285	1,444
New Brunswick.....	215	7	—	—	23	84	102	286	717
Quebec.....	2,223	91	246	19	462	832	1,793	2,895	8,523
Ontario.....	10,474	686	1,170	772	2,067	3,253	3,442	6,538	28,402
Manitoba.....	1,453	61	164	218	634	1,004	1,188	1,106	5,828
Saskatchewan.....	83	1	—	18	94	215	146	94	651
Alberta.....	—	—	—	—	469	626	916	1,972	3,983
British Columbia.....	3,951	147	136	398	625	1,222	1,041	2,125	9,645
Northwest Territories.....	—	—	—	—	—	—	—	2	2
<b>Totals.....</b>	<b>19,145</b>	<b>1,007</b>	<b>1,720</b>	<b>1,393</b>	<b>4,433</b>	<b>7,340</b>	<b>8,886</b>	<b>15,338</b>	<b>59,262</b>
AMOUNTS									
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Prince Edward Island.....	97	—	—	—	—	21	170	223	511
Nova Scotia.....	2,993	49	13	20	266	532	1,364	1,629	6,866
New Brunswick.....	931	23	—	—	101	1,001	562	1,781	4,399
Quebec.....	15,608	328	816	4	2,992	8,964	14,422	26,663	69,789
Ontario.....	41,843	2,017	3,696	2,718	10,254	26,163	19,116	40,643	146,450
Manitoba.....	5,804	188	516	778	3,030	5,017	6,577	7,576	29,486
Saskatchewan.....	413	4	—	62	403	1,771	735	617	4,005
Alberta.....	—	—	—	—	2,099	4,028	4,960	11,324	22,411
British Columbia.....	12,854	421	411	1,280	3,119	8,449	5,325	11,173	43,032
Northwest Territories.....	—	—	—	—	—	—	—	13	13
<b>Totals.....</b>	<b>80,543</b>	<b>3,030</b>	<b>5,452</b>	<b>4,854</b>	<b>22,264</b>	<b>55,946</b>	<b>53,231</b>	<b>101,642</b>	<b>326,962</b>

**National Housing Act, 1944.**—The features of this Act as originally proclaimed appear on pp. 455-457 of the 1946 Year Book. The Act has been constantly amended to meet changing conditions. In 1948, the principal change was the addition of a rental insurance plan to encourage the construction of rental housing. An outline of the present status of the Act is given below.

**Loans to Prospective Home Owners.**—Loans are extended through approved lending institutions with the Federal Government advancing 25 p.c. of the total. The Act has been amended to provide for loans payable over periods up to 30 years with the amount based on a maximum of 95 p.c. of the first \$3,000, 85 p.c. of the second \$3,000, and 70 p.c. of the remainder of the lending value when the purchase price is predetermined and approved by the Central Mortgage and Housing Corporation. When the latter condition is not met a higher equity is payable. The maximum loan for a single family-dwelling has been increased from \$7,000 to \$8,500.

**Integrated Housing.**—This plan involves an agreement with a builder to build houses at a controlled sales price for veterans' preference. The Central Mortgage and Housing Corporation gives priority assistance and undertakes to purchase houses not sold within six months of the completion date. The provisions governing the size of the loan are the same as for prospective home owners.



*Co-operative Housing.*—The terms under which loans are made to co-operative groups intending to build housing projects are unchanged (see p. 456, 1946 Year Book).

*Rental Housing.*—The Act provides for a period of ten years at double the rates normally allowed for income tax purposes for approved types of dwelling comprising four or more family dwelling units. To encourage the construction of rental housing the Act was amended in 1948 by the addition of a Rental Insurance Plan. Owners of projects built under the plan are guaranteed a return of rentals sufficient to pay taxes, operating expenses, debt service and a minimum of 2 p.c. on the equity. The project must conform to certain standards of construction and must consist of at least eight housing units and the period of guarantee may be up to 30 years.

*Direct Loans.*—The Act was amended to enable the Central Mortgage and Housing Corporation to make direct loans for home ownership, rental housing, or rural housing if, in its opinion, joint loans are not available.

*Limited Dividend Companies.*—The Act provides for loans to limited dividend companies for the construction of low rental housing. The high level of building costs has deterred the development of low rental housing. During 1947, Housing Enterprises of Canada, Limited, suspended operations because they could not meet the cost levels originally contemplated.

*Loans to Primary Producers for Housing of Employees.*—Terms remain the same for loans to companies building housing quarters for employees engaged in primary production (see p. 585, 1947 Year Book).

*Land Assembly.*—The Act was amended in 1947 for the purpose of authorizing approved lending institutions to acquire, improve and sell land for residential purposes.

*Slum Clearance.*—Due to the extreme shortage of housing accommodation slum clearance projects have not been pressed in former years. However, a grant was approved in 1948 to assist in slum clearance in the city of Toronto.

*Farm Housing.*—If there is no existing mortgage or encumbrance upon the farm, the loan is limited to the least of \$5,000, the cost of building the house, or two-thirds of the appraised value of the farm. If there is a mortgage or encumbrance, the loan is limited to the least of \$8,000, the sum of the cost of building the house and liquidating existing indebtedness, or two-thirds of the appraised value of the farm. Loans for new farm housing are repayable over a period of up to 20 years at 4½ p.c. per annum calculated semi-annually.

*Home Extension Loans.*—The purpose of these loans is to enable the conversion of existing homes to create additional self-contained dwelling units. The terms of the loans are the same as in 1946 (see p. 586, 1947 Year Book).

*Housing Research and Community Planning.*—Research and community planning cover the fields of: economic and statistical inquiries; technical research in materials, equipment, standards, etc., and design. In 1947, the National Research Council of the Federal Government formed a Division of Building Research to undertake the major portion of actual technical and laboratory research work regarding building methods and materials.

*Emergency Shelter Regulations.*—These regulations were intended to assist municipalities in converting unoccupied houses, barracks or other suitable buildings for the accommodation of families suffering actual distress or hardship through lack of shelter. By the end of 1948, 10,304 units had been provided by municipalities and

universities and the Emergency Shelter Administration. The regulations were revoked as from Dec. 31, 1948, and activities in 1949 were limited to meeting outstanding commitments.

*Veterans' Land Act.*—A program, under the terms of this Act, includes construction of homes on small holdings outside urban areas. The project is the responsibility of the Minister of Veterans Affairs. (See also Chapter XXVIII on Veterans Affairs.)

*Farm Improvement Loans Act.*—This legislation aims at the improvement of living conditions on farms by the provision of electrification, refrigeration, heating systems, water systems, etc. The Act is more fully dealt with in Chapter XI on pp. 405-406.

## Section 2.—Construction of Dwelling Units in Canada

The number of dwelling units completed in Canada during 1948 is estimated at 81,243, including 5,146 units added by conversions, compared with 79,359 units in 1947. This brings the total number of dwelling units completed in the last four years to 276,516. At the end of 1948 there were more than 56,000 dwelling units under construction in Canada. During 1948 about 76 p.c. of completed dwellings were built in urban centres and approximately 81 p.c. of all completions were single houses. It is estimated that about 25 p.c. were for rental purposes and the remainder were built for owner-occupancy. The following tables summarize the results of surveys conducted by the Dominion Bureau of Statistics and the Central Mortgage and Housing Corporation.

### 2.—New Dwelling Units, by Type, 1946-49

Type	1946	1947	1948	1949 <sup>1</sup>
	No.	No.	No.	No.
<b>New Construction—</b>				
One-family detached.....	50,457	58,883	61,787	35,298
Two-family detached.....	4,206	5,314	4,560	4,138
Row or terrace.....	510	608	1,607	361
Apartment or flat.....	2,898	7,460	7,836	6,301
Other.....	2,504	81	307	228
<b>Totals New Construction.....</b>	<b>60,575</b>	<b>72,346</b>	<b>76,097</b>	<b>46,326</b>
Conversions.....	6,740	7,013	5,146	—
<b>Grand Totals.....</b>	<b>67,315</b>	<b>79,359</b>	<b>81,243</b>	<b>—</b>

<sup>1</sup> First seven months.

### 3.—New Dwelling Units, by Provinces, 1948-49

(Exclusive of Conversions)

Province	1948			1949 <sup>1</sup>		
	Urban	Rural	Total	Urban	Rural	Total
	No.	No.	No.	No.	No.	No.
Prince Edward Island.....	132	98	230	63	112	175
Nova Scotia.....	1,494	1,094	2,588	1,173	676	1,849
New Brunswick.....	946	1,045	1,991	617	86	703
Quebec.....	16,291	3,880	20,171	11,585	1,190	12,775
Ontario.....	18,207	8,184	26,391	12,861	3,550	16,411
Manitoba.....	3,118	1,443	4,561	2,078	345	2,423
Saskatchewan.....	2,348	853	3,211	1,144	324	1,468
Alberta.....	5,794	429	6,223	4,309	504	4,813
British Columbia.....	9,705	1,026	10,731	4,797	912	5,709
<b>Totals.....</b>	<b>58,035</b>	<b>18,062</b>	<b>76,097</b>	<b>38,627</b>	<b>7,699</b>	<b>46,326</b>

<sup>1</sup> First seven months.

## 4.—New Dwelling Units by Metropolitan Areas, 1946-48

(Exclusive of Conversions)

Metropolitan Area	1946	1947	1948	1946	1947	1948
	No.	No.	No.	p.c.	p.c.	p.c.
Halifax.....	665	371	471	1.1	0.5	0.6
Saint John.....	242	457	134	0.4	0.6	0.2
Quebec.....	950	834	1,082	1.6	1.1	1.4
Montreal.....	3,571	6,183	8,814	5.9	8.5	11.6
Ottawa.....	1,447	1,194	1,454	2.4	1.7	1.9
Toronto.....	4,204	3,836	4,143	6.9	5.3	5.4
Hamilton.....	640	1,141	1,317	1.1	1.6	1.7
London.....	625	799	732	1.0	1.1	1.0
Windsor.....	733	839	806	1.2	1.2	1.1
Winnipeg.....	1,966	3,242	2,881	3.2	4.5	3.8
Vancouver.....	3,872	3,750	6,758	6.4	5.2	8.9
Victoria.....	787	829	1,353	1.3	1.1	1.8
<b>Totals.....</b>	<b>19,702</b>	<b>23,475</b>	<b>29,945</b>	<b>32.5</b>	<b>32.4</b>	<b>39.4</b>
<b>Totals, Canada.....</b>	<b>60,575</b>	<b>72,346</b>	<b>76,097</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

## Section 3.—Contracts Awarded and Building Permits Issued

In this Section statistics are given of work actually in sight either as contracts awarded or as building permits. These figures are related to those of work performed during the year only so far as the work thus provided for is completed and duly reported in the Census of Construction. Further, values of contracts awarded, and especially of building permits, are estimates (more often underestimates) of work to be done. Obviously these statistics and those of Section 4 cannot be expected to agree, since much work contracted for towards the end of any one year is often not commenced until the next and, especially as regards large contracts or contracts undertaken late in any year, extends into more than one year. The figures here given are, therefore, supplementary to those of Section 4 and are valuable as showing from year to year the work immediately contemplated during the period.

**Construction Contracts.**—The figures published by MacLean Building Reports, Limited, for construction contracts awarded during 1948 showed a total of \$954,082,400. This amount represented an increase of 33 p.c. over the \$718,137,100 reported for 1947 and 65 p.c. over the high pre-war level (\$576,651,800) established in 1929.

Of the four main classes of construction shown in Table 6 residential, business and engineering showed increases of 89 p.c., 32 p.c. and 14 p.c., respectively, over those of 1947; the industrial class on the other hand showed a decrease of 34 p.c.

Regionally, Ontario accounted for the greatest volume with total awards of \$350,612,300, or 37 p.c. of the total, followed by Quebec with 34 p.c. The greatest percentage increases over 1947 were shown by Alberta and British Columbia. Prince Edward Island and Saskatchewan showed decreases in 1948.



**5.—Values of Construction Contracts Awarded, 1913-48**

(Source: MacLean Building Reports, Limited)

Year	Value of Construction Contracts	Year	Value of Construction Contracts	Year	Value of Construction Contracts
	\$		\$		\$
1913.....	384,157,000	1925.....	297,973,000	1937.....	224,056,700
1914.....	241,952,000	1926.....	372,947,900	1938.....	187,277,900
1915.....	83,916,000	1927.....	418,951,600	1939.....	187,178,500
1916.....	99,311,000	1928.....	472,032,600	1940.....	346,009,800
1917.....	84,841,000	1929.....	576,651,800	1941.....	393,991,300
1918.....	99,842,000	1930.....	456,999,600	1942.....	281,594,100
1919.....	190,028,000	1931.....	315,482,000	1943.....	206,103,900
1920.....	255,605,000	1932.....	132,872,400	1944.....	291,961,800
1921.....	240,133,300	1933.....	97,289,800	1945.....	409,032,700
1922.....	331,843,800	1934.....	125,811,500	1946.....	663,355,100
1923.....	314,254,300	1935.....	160,305,000	1947.....	718,137,100
1924.....	276,261,100	1936.....	162,588,000	1948.....	954,082,400

**6.—Values of Construction Contracts Awarded, by Provinces and Types of Construction, 1943-48**

(Source: MacLean Building Reports, Limited)

Province or Type	1943	1944	1945	1946	1947	1948
	\$	\$	\$	\$	\$	\$
Prince Edward Island.....	719,300	657,900	904,900	650,200	3,991,900	2,409,600
Nova Scotia.....	7,535,500	9,157,200	14,681,900	13,489,400	28,855,000	36,624,200
New Brunswick.....	6,620,600	9,898,000	10,720,000	26,698,500	27,017,800	28,980,100
Quebec.....	61,816,700	89,884,800	121,943,400	226,809,500	255,202,400	327,111,900
Ontario.....	83,025,300	111,741,800	151,856,000	252,787,400	258,709,300	350,612,300
Manitoba.....	10,083,900	12,906,400	22,228,700	25,741,500	34,446,100	45,414,700
Saskatchewan.....	3,970,000	5,677,600	15,986,100	19,497,500	23,040,200	18,273,600
Alberta.....	18,529,300	19,501,900	32,677,800	38,971,900	47,425,100	74,071,700
British Columbia.....	13,803,300	32,536,200	38,033,900	58,709,200	39,449,800	70,533,600
<b>Grand Totals.....</b>	<b>206,103,900</b>	<b>291,961,800</b>	<b>409,032,700</b>	<b>663,355,100</b>	<b>718,137,100</b>	<b>954,082,400</b>
<b>RESIDENTIAL—</b>						
Apartments.....	913,400	8,856,600	6,282,800	18,998,800	12,049,600	30,069,100
Residences.....	78,195,700	122,386,500	189,740,400	194,051,700	185,146,700	342,986,800
<b>TOTALS, RESIDENTIAL.....</b>	<b>79,109,100</b>	<b>131,243,100</b>	<b>196,023,200</b>	<b>213,050,500</b>	<b>197,196,300</b>	<b>373,055,900</b>
<b>BUSINESS—</b>						
Churches.....	1,198,400	1,688,100	3,321,700	14,426,500	11,263,000	16,425,500
Public garages.....	1,269,900	1,940,100	3,245,400	16,859,900	15,789,200	13,096,900
Hospitals.....	6,144,600	18,529,300	22,061,300	23,863,700	40,298,900	49,318,800
Hotels and clubs.....	2,370,400	2,442,300	2,589,800	16,071,600	14,541,200	27,628,800
Office buildings.....	2,826,700	3,742,900	5,316,500	18,912,400	34,620,600	34,137,900
Public buildings.....	30,660,400	13,022,000	7,407,400	7,411,600	16,197,900	19,919,400
Schools.....	4,304,800	8,346,700	15,583,700	23,019,500	45,648,400	79,156,000
Stores.....	1,813,100	3,999,300	6,571,200	29,271,200	28,685,500	42,348,000
Theatres.....	244,200	322,500	401,400	8,921,500	7,823,200	4,814,500
Warehouses.....	10,185,400	14,590,700	19,798,500	28,047,600	24,662,300	28,413,100
<b>TOTALS, BUSINESS.....</b>	<b>61,017,900</b>	<b>68,623,900</b>	<b>86,296,900</b>	<b>186,805,500</b>	<b>239,530,200</b>	<b>315,258,900</b>
<b>INDUSTRIAL.....</b>	<b>32,857,000</b>	<b>58,712,100</b>	<b>75,540,200</b>	<b>138,328,500</b>	<b>113,495,000</b>	<b>74,878,100</b>
<b>ENGINEERING—</b>						
Bridges.....	2,059,200	1,519,000	2,099,300	5,279,200	7,037,400	7,562,000
Dams and wharves.....	3,708,200	5,718,400	2,467,000	10,379,700	41,663,700	18,215,000
Sewers and water mains.....	1,795,200	2,244,900	5,284,900	13,144,900	16,281,200	20,038,600
Roads and streets.....	11,222,600	14,428,100	20,231,300	56,941,600	53,707,800	45,856,900
General engineering.....	14,334,700	9,472,300	21,089,900	39,425,200	49,225,500	99,217,000
<b>TOTALS, ENGINEERING..</b>	<b>33,119,900</b>	<b>33,382,700</b>	<b>51,172,400</b>	<b>125,170,600</b>	<b>167,915,600</b>	<b>190,889,500</b>

<sup>1</sup> Totals of provincial figures do not agree with this figure due to rounding out.

**Building Permits.**—Statistics of building permits were first collected in 1910, when the series covered 35 urban centres; in 1920 they were extended to cover 58 municipalities, including unincorporated suburban areas as, with the advent of the automobile, a growing percentage of persons working in cities were residing outside the municipal boundaries of the urban centres in which they earned their living. In 1940 the series was again extended to cover 204 municipalities. The number of urban centres included is being expanded further. However, until plans are advanced it is felt desirable in the Year Book to maintain comparability with earlier issues by retaining the '204' list.

Building permits issued in 1948 registered an increase of 44 p.c. compared with 1947.

### 7.—Values of Building Permits Issued by 204 Municipalities, 1947 and 1948

NOTE.—Statistics for these series covering years previous to 1946 will be found in the corresponding tables of earlier editions of the Year Book. For the 35 cities marked (•) the record goes back to 1910; the 23 places marked (◊) were added in 1920.

Province and Municipality	1947	1948	Province and Municipality	1947	1948
\$	\$		\$	\$	
<b>Prince Edward Island</b> ....	<b>470,975</b>	<b>839,100</b>	<b>Quebec—concluded</b>		
◊ Charlottetown.....	470,975	839,100	Longueuil.....	601,955	1,186,840
<b>Nova Scotia</b> .....	<b>7,676,830</b>	<b>10,996,830</b>	Mégantic.....	353,250	410,980
Amherst.....	236,845	949,954	• Montreal (• Maison-neuve).....	50,796,777	74,114,875
Bridgewater.....	258,750	180,150	Montreal East.....	1,796,256	2,017,455
Dartmouth.....	555,210	470,300	Montreal North.....	739,725	1,082,385
Glace Bay.....	436,833	438,787	Montreal West.....	410,345	335,100
• Halifax.....	3,650,839	5,395,714	Mount Royal.....	1,716,290	1,787,905
Liverpool.....	69,300	48,800	Noranda.....	645,350	615,050
◊ New Glasgow.....	351,185	301,490	Outremont.....	828,850	1,180,600
New Waterford.....	69,800	134,700	Pointe-aux-Trembles....	533,325	550,100
North Sydney.....	120,500	76,025	Pointe Claire.....	794,419	1,030,270
• Sydney.....	753,583	1,279,400	• Quebec.....	5,608,667	8,344,423
Sydney Mines.....	76,210	106,025	Rimouski.....	416,380	745,440
Truro.....	894,500	1,267,395	Rivière-du-Loup.....	397,445	325,650
Yarmouth.....	203,275	348,090	Rouyn.....	1,428,540	658,770
<b>New Brunswick</b> .....	<b>7,236,794</b>	<b>10,200,361</b>	Ste. Agathe-des-Monts..	552,000	387,800
Campbellton.....	705,745	304,325	Ste. Anne-de-Bellevue...	42,225	385,165
Chatham.....	69,500	2,102,200	St. Hyacinthe.....	604,175	1,264,300
Dalhousie.....	125,460	179,555	St. Jean.....	1,153,700	911,950
◊ Fredericton.....	1,994,127	2,803,715	St. Jérôme.....	1,028,075	2,232,522
Moncton.....	2,766,132	1,581,587	St. Joseph-de-Grantham	196,830	311,597
Newcastle.....	58,775	348,415	St. Lambert.....	557,805	760,575
• Saint John.....	1,233,394	2,725,289	St. Laurent.....	1,600,350	9,361,300
St. Stephen.....	283,661	155,275	• Shawinigan Falls.....	4,480,050	2,164,885
<b>Quebec</b> .....	<b>97,730,827</b>	<b>145,824,586</b>	• Sherbrooke.....	2,228,000	5,068,775
Cap-de-la-Madeleine....	1,448,740	1,706,210	Sorel.....	474,630	201,280
Chicoutimi.....	1,004,785	1,281,475	• Three Rivers.....	1,260,078	2,477,050
Coaticook.....	167,985	301,815	Val d'Or.....	812,175	1,741,185
Drummondville.....	841,575	1,450,860	Valleyfield.....	874,174	993,006
Ganby.....	1,721,870	1,291,045	Verdun.....	2,603,600	4,375,775
Grand Mère.....	349,450	1,249,775	• Westmount.....	874,890	1,042,395
Hampstead.....	257,800	284,793			
Hull.....	878,751	1,381,375	<b>Ontario</b> .....	<b>161,903,785</b>	<b>225,446,632</b>
Iberville.....	153,730	219,465	Amherstburg.....	297,650	240,080
Joliette.....	1,185,050	1,674,700	Barrie.....	554,407	746,820
Jonquière.....	617,750	1,049,950	◊ Belleville.....	1,712,590	1,848,760
Lachine.....	1,978,498	3,624,970	Bowmanville.....	135,013	219,135
Laprairie.....	192,937	158,850	Bracebridge.....	290,163	113,350
La Tuque.....	239,325	915,100	Brampton.....	648,272	1,301,684
Lévis.....	282,250	1,168,800	• Brantford.....	1,354,461	2,202,849
			Brockville.....	721,450	1,006,900
			Burlington.....	538,150	954,740
			Campbellford.....	238,400	78,600
			◊ Chatham.....	1,227,590	2,772,089
			Cobourg.....	244,375	241,065
			Cochrane.....	55,368	92,289
			Collingwood.....	150,750	137,934
			Cornwall.....	1,119,998	1,000,165

## 7.—Values of Building Permits Issued by 204 Municipalities, 1947 and 1948—concluded

Province and Municipality	1947	1948	Province and Municipality	1947	1948
\$	\$	\$	\$	\$	\$
<b>Ontario—continued</b>			<b>Ontario—concluded</b>		
Dundas.....	345,219	496,995	Whitby.....	322,435	448,855
Eastview.....	947,875	1,689,140	• Windsor.....	5,856,510	9,368,144
Etobicoke Twp.....	7,156,268	16,238,509	◦ Woodstock.....	675,276	1,647,497
Forest Hill.....	1,059,102	2,381,779	◦ York Twp.....	6,483,200	5,879,950
Fort Erie.....	269,850	45,100 <sup>1</sup>	◦ York East Twp.....	3,751,965	6,273,730
Fort Frances.....	236,209	485,912			
• Fort William.....	3,006,190	2,892,110			
◦ Galt.....	844,315	743,077			
Gananoque.....	224,695	172,635	<b>Manitoba.....</b>	<b>21,472,662</b>	<b>25,675,980</b>
Gloucester Twp.....	2,363,239	2,443,825	• Brandon.....	745,305	1,170,120
Goderich.....	145,690	171,050	Brooklands.....	68,420	50,235
• Guelph.....	1,437,093	9,225,268	Dauphin.....	233,530	332,660
Haileybury.....	25,355	95,270	North Kildonan.....	129,275	117,900
• Hamilton.....	7,945,553	17,695,878	Portage la Prairie.....	156,317	170,415
Hanover.....	162,010	165,925	◦ St. Boniface.....	2,123,855	4,319,775
Hawkesbury.....	152,435	211,725	Selkirk.....	181,000	518,500
Huntsville.....	392,375	479,880	The Pas.....	78,125	94,600
Ingersoll.....	99,355	283,705	Transcona.....	266,835	264,975
Kapusking.....	501,390	687,483	• Winnipeg.....	17,490,000	18,636,800
Kenora.....	355,984	280,729			
• Kingston.....	3,264,366	2,036,291			
Kirkland Lake (Twp. of Teck).....	255,208	240,839	<b>Saskatchewan.....</b>	<b>12,924,669</b>	<b>12,039,038</b>
• Kitchener.....	3,197,330	6,324,786	Biggar.....	19,200	16,390
Leamington.....	229,980	867,475	Estevan.....	251,960	149,069
Leaside.....	3,456,690	3,013,985	Melville.....	476,150	121,075
Lindsay.....	251,715	699,790	• Moose Jaw.....	444,026	712,015
Listowel.....	46,975	464,212	North Battleford.....	431,650	382,670
• London.....	4,902,585	6,781,260	Prince Albert.....	1,215,285	1,080,002
Long Branch.....	717,560	831,950	• Regina.....	3,298,532	5,070,785
Mimico.....	540,110	617,395	• Saskatoon.....	5,591,815	2,080,212
Napanee.....	106,925	288,250	Swift Current.....	400,711	644,590
Nepean Twp.....	3,027,598	4,946,275	Weyburn.....	85,865	541,300
New Liskeard.....	235,911	184,110	Yorkton.....	709,475	1,240,930
Newmarket.....	342,900	571,950			
New Toronto.....	843,655	731,320			
◦ Niagara Falls.....	1,285,700	1,940,124	<b>Alberta.....</b>	<b>27,267,475</b>	<b>46,813,711</b>
North Bay.....	986,556	1,217,358	• Calgary.....	10,588,240	13,957,305
North York Twp.....	11,609,533	21,562,644	Drumheller.....	144,465	294,227
Oakville.....	542,800	1,754,354	• Edmonton.....	13,246,505	27,137,329
Orillia.....	878,990	1,063,003	◦ Lethbridge.....	2,237,940	4,482,539
• Oshawa.....	1,263,515	2,500,256	◦ Medicine Hat.....	1,050,025	942,311
• Ottawa.....	8,148,284	8,503,990			
◦ Owen Sound.....	769,222	726,890			
Paris.....	86,185	125,415	<b>British Columbia.....</b>	<b>36,547,232</b>	<b>58,221,359</b>
Parry Sound.....	21,070	92,550	Chilliwack.....	649,800	1,001,847
Pembroke.....	333,120	1,435,325	Cranbrook.....	127,666	164,757
Perth.....	104,150	238,450	Fernie.....	39,090	258,505
• Peterborough.....	3,508,471	2,355,297	◦ Kamloops.....	630,575	805,557
Petrolia.....	19,500	35,700	Kelowna.....	1,629,881	2,825,478
• Port Arthur.....	3,263,861	2,974,480	◦ Nanaimo.....	337,746	762,220
Port Colborne.....	273,858	226,117	Nelson.....	203,664	248,159
Preston.....	386,409	269,056	• New Westminster.....	2,722,786	2,919,744
Renfrew.....	175,775	703,425	◦ North Vancouver.....	1,033,945	1,956,205
◦ Riverside.....	656,790	777,550	Prince George.....	914,825	571,200
• St. Catharines.....	1,941,520	2,380,145	◦ Prince Rupert.....	210,511	193,108 <sup>1</sup>
St. Marys.....	31,810	120,405	Revelstoke.....	294,085	35,025
• St. Thomas.....	403,530	1,435,020	Rossland.....	77,110	46,390
◦ Sarnia.....	1,183,645	2,782,079	Trail.....	128,414	1,195,437
◦ Sault Ste. Marie.....	1,613,190	2,454,228	• Vancouver.....	21,877,675	37,242,817
Scarboro Twp.....	7,727,730	9,815,485	Vernon.....	1,131,617	2,139,349
Simcoe.....	491,360	607,150	• Victoria.....	4,537,842	5,855,561
Smiths Falls.....	452,250	365,950			
• Stratford.....	559,450	2,237,472	<b>Totals—</b>		
Sudbury.....	1,839,690	3,047,100	<b>204 Municipalities.....</b>	<b>373,231,249</b>	<b>536,057,597</b>
Swansea.....	491,964	588,114			
Tillsonburg.....	251,010	318,401	<b>Totals—</b>		
Timmins.....	800,938	491,715	<b>58 Municipalities (◦).....</b>	<b>267,547,794</b>	<b>368,445,144</b>
• Toronto.....	31,818,097	31,030,778	<b>Totals—</b>		
Trenton.....	382,507	418,541	<b>35 Municipalities (•).....</b>	<b>230,322,687</b>	<b>317,255,964</b>
Wallaceburg.....	255,410	280,570			
Waterloo.....	301,645	731,397			
◦ Welland.....	837,175	1,272,045			
Weston.....	1,039,342	1,507,534			

<sup>1</sup> Incomplete returns.



The indexes given in Table 8 show, as far as possible, the fluctuations in building costs and their effect upon construction work and employment. The relative proportions of material and wage costs in general building are difficult to determine since such proportions vary with the type of building and the centres studied. Pre-war experience, the result of a special study made for 15 cities, indicates that the proportions of costs of materials to costs of labour in all construction averaged two-thirds for the former to one-third for the latter. The increase in the cost of recent building operations has probably been much more than is indicated by the increase in the indexes of wholesale prices and wages shown and the proportions of these items to total costs have, no doubt, undergone some variation due to changes in types and methods of construction and to the greater use of machinery.

Four of the largest cities, Montreal, Toronto, Winnipeg and Vancouver, accounted for \$161,025,270 or 30 p.c. of this total. In 1929 the same cities showed a value of \$126,387,555.

#### 8.—Values of Building Permits Taken Out in 204 Municipalities and Index Numbers of the Building Construction Industries, 1940-48

NOTE.—These 204 Municipalities are named in Table 7.

Year	Value of Building Permits, 204 Municipalities	Average Index Numbers of— (1926=100)		
		Wholesale Prices of Building Materials	Wages in Con- struction Industries <sup>1</sup>	Employment in Building Con- struction <sup>2</sup>
	\$			
1940.....	113,005,208	95.6	103.6	83.5
1941.....	135,301,519	107.3	110.6	139.5
1942.....	104,236,278	115.2	117.5	157.9
1943.....	80,190,123	121.2	126.6	160.2
1944.....	128,728,465	127.3	128.4	95.3
1945.....	197,187,160	127.3	129.9	101.8
1946.....	383,596,698	134.8	142.6	145.7
1947.....	373,231,249	166.4	153.6	190.6
1948.....	536,057,597	195.7	174.7	212.6

<sup>1</sup> Compiled by the Department of Labour.

<sup>2</sup> As reported by employers.

**Trends of Employment and Aggregate Wages Paid in the Construction Industry.**—In Tables 9 and 10 the employment figures, shown on a monthly basis, reflect the fact that the industry is not as decidedly seasonal as is sometimes thought. The month of highest employment in the industry as a whole, in 1947, was August with 250,108 wage-earners and the lowest was January with 145,210.

**9.—Employment of Wage-Earners in the Construction Industry, by Months,  
and Aggregate Annual Wages Paid, 1946 and 1947**

Year and Month	General and Trade Contractors and Sub- contractors	Municipalities	Harbours Board	Provincial Government Departments	Federal Government Departments	Total
	No.	No.	No.	No.	No.	No.
<b>1946</b>						
January.....	97,853	7,438	426	5,113	3,260	114,090
February.....	97,034	7,324	438	3,937	3,443	112,176
March.....	103,685	8,066	492	5,928	3,837	122,008
April.....	115,619	9,950	506	7,090	3,158	136,323
May.....	135,185	11,874	548	13,068	3,385	164,060
June.....	147,058	12,876	561	15,496	3,730	179,721
July.....	154,928	13,437	629	18,037	4,247	191,278
August.....	158,117	13,341	612	19,273	4,450	195,793
September.....	154,465	12,435	597	19,880	4,476	191,853
October.....	155,159	12,141	616	20,573	4,567	193,056
November.....	146,464	10,929	513	18,446	4,085	180,437
December.....	129,675	8,947	411	12,216	3,321	154,570
<b>Monthly Averages...</b>	<b>132,937</b>	<b>10,730</b>	<b>529</b>	<b>13,254</b>	<b>3,830</b>	<b>161,280</b>
Wages Paid During Year..... \$	232,792,135	16,061,265	874,434	17,148,634	6,738,374	273,614,842
<b>1947</b>						
January.....	124,608	8,488	443	8,287	3,384	145,210
February.....	126,201	8,544	436	7,543	3,385	146,109
March.....	133,443	8,945	499	9,432	3,726	156,045
April.....	144,615	11,333	546	11,721	3,262	171,477
May.....	166,237	13,432	602	19,463	3,823	203,557
June.....	180,354	14,910	579	24,063	4,254	224,160
July.....	194,416	16,143	606	28,676	5,005	244,846
August.....	197,126	16,214	635	30,497	5,636	250,108
September.....	194,048	14,896	645	30,306	5,323	245,218
October.....	194,605	14,260	653	30,431	5,020	244,969
November.....	178,570	12,230	545	26,024	4,401	221,770
December.....	155,370	9,927	477	14,867	3,701	184,342
<b>Monthly Averages...</b>	<b>165,799</b>	<b>12,444</b>	<b>556</b>	<b>20,109</b>	<b>4,243</b>	<b>203,151</b>
Wages Paid During Year..... \$	321,742,631	20,917,824	974,977	35,632,049	7,631,435	386,898,916

**10.—Average Wage-Earners Employed in the Construction Industry and Total Wages  
Paid, by Provinces, 1946 and 1947**

Province	1946		1947	
	Monthly Average of Daily Figures of Wage-Earners Employed	Total Wages Paid During Year	Monthly Average of Daily Figures of Wage-Earners Employed	Total Wages Paid During Year
	No.	\$	No.	\$
Prince Edward Island.....	430	619,252	508	818,175
Nova Scotia.....	10,989	15,121,053	10,949	19,311,130
New Brunswick.....	6,514	9,740,076	8,129	13,507,882
Quebec.....	45,067	73,087,392	59,614	108,108,534
Ontario.....	60,787	107,582,229	76,909	150,204,805
Manitoba.....	7,013	11,910,215	8,591	16,183,296
Saskatchewan.....	4,742	7,896,487	6,348	11,738,779
Alberta.....	7,685	13,678,462	9,553	18,403,082
British Columbia.....	18,053	33,979,676	22,551	48,623,233
<b>Totals.....</b>	<b>161,280</b>	<b>273,614,842</b>	<b>203,151</b>	<b>386,898,916</b>

## Section 4.—Annual Census of Construction

The annual Census of Construction as taken by the Dominion Bureau of Statistics covers all construction, maintenance and repair work undertaken throughout Canada by contractors, builders and all public bodies with the exception of smaller municipalities. It also includes work done by the maintenance and repair crews of industrial plants, mines, electric power companies and commissions, etc., in organized communities where building permits are required. However, construction and repair work done by farmers and other individuals on their own structures is not covered. Further, construction of railway-roadbed, maintenance and repair work on steam and electric railways, telegraph and telephone systems and the lesser public utilities is not included when such work is done by the employees of these concerns in the ordinary way. Table 11 shows the expenditures by steam and electric railways, telegraph and telephone systems with the elimination wherever possible of items that are not germane to construction, such as snow, ice, and sand removal, dismantling of property, depreciation and retirement charges. By subtracting the work sublet to contractors from the expenditures, duplication with the Census of Construction figures is eliminated. Finally, by adding to the figures the totals given by the Census of Construction a total is obtainable which closely approximates over-all construction with the sole exception of work undertaken by farmers and other individuals for themselves.

### 11.—Expenditures by Steam and Electric Railways, and Telegraph and Telephone Systems on Road Construction, Maintenance of Way and Structures and Maintenance of Equipment, together with Totals of Annual Census of Construction, 1945-47.

Item	1945	1946	1947
	\$	\$	\$
Steam Railways—			
Construction—			
New lines: Road.....	2,793,751	3,376,385	1,071,411
Additions and betterments: Road.....	3,224,843	20,639,010	14,744,509
Maintenance of way and structures.....	110,758,551	108,513,380	114,897,115
Maintenance of equipment.....	103,067,682	107,093,059	118,732,680
<i>Less: work done by contractors.....</i>	<i>1,017,877</i>	<i>1,222,884</i>	<i>2,244,022</i>
Net Totals, Steam Railways.....	218,826,950	238,398,950	247,231,693
Electric Railways—			
Maintenance of way and structures.....	4,271,868	3,884,841	2,427,869
Maintenance of equipment.....	10,271,410	8,218,224	7,965,948
<i>Less: work done by contractors.....</i>	<i>674,209</i>	<i>845,797</i>	<i>1,588,804</i>
Net Totals, Electric Railways.....	13,969,069	11,257,268	9,005,013
Telegraph maintenance <sup>1</sup> .....	858,405	997,113	952,731
Telephone maintenance.....	18,070,846	22,261,863	26,894,402
Net Totals, Telegraph and Telephone.....	18,929,251	23,258,976	27,847,133
<b>Combined Totals.....</b>	<b>251,725,270</b>	<b>272,915,194</b>	<b>284,083,839</b>
<b>Totals for Census of Construction.....</b>	<b>543,579,833</b>	<b>868,661,403</b>	<b>1,256,535,677</b>
<b>Grand Totals<sup>2</sup>.....</b>	<b>795,305,103</b>	<b>1,141,576,597</b>	<b>1,540,619,516</b>

<sup>1</sup> Exclusive of railway-owned systems, included above.

<sup>2</sup> Represents approximate total of all construction with the exception of work undertaken by farmers and other individuals for themselves.



**Statistics of Construction.\***—A census of construction was made by the Dominion Bureau of Statistics for 1934, but the basis of compilation was not standardized until 1935; comparable statistics are now available for the years 1935-47. Returns are received from general trade and subcontractors, municipalities, the Harbours Board, and Federal and Provincial Government Departments. The figures in Tables 12, 13 and 14 cover alterations, maintenance and repairs, and new construction. No relationship exists between the total value of construction shown in these tables, and the value of contracts awarded as indicated in Tables 5 and 6 of Section 3, p. 654. In the latter case all values are included as soon as awards are made, irrespective of whether the contract is completed or even begun in that year, whereas the following tables cover construction work carried on and actually performed in the calendar year.

\* Revised in the Construction Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

### 12.—Principal Statistics of the Construction Industry, 1944-47

NOTE.—Comparable figures from 1935 are given in the corresponding table of previous Year Books beginning with the 1940 edition.

Item	1944	1945	1946	1947
Firms reporting..... No.	16,121	19,025	23,793	26,542
Salaries employees..... "	26,767	30,646	37,571	47,179
Salaries paid..... \$	44,285,139	52,296,053	71,278,215	96,008,310
Wage-earning employees (average)..... No.	97,125	115,884	161,280	203,152
Wages paid..... \$	153,418,845	181,695,401	273,614,842	386,898,916
Total employees..... No.	123,892	146,530	198,851	250,330
Salaries and wages paid..... \$	197,703,984	233,991,454	344,893,057	482,907,226
Cost of materials used..... \$	200,801,042	275,621,996	459,965,741	654,996,225
Value of work performed <sup>1</sup> ..... \$	449,838,059	543,579,833	868,661,403	1,256,535,677
New construction <sup>1</sup> ..... \$	265,819,003	320,225,176	577,372,143	1,001,909,467
Additions, alterations, maintenance and repairs..... \$	184,019,056	223,354,657	291,289,260	254,626,210
Subcontract work performed..... \$	74,214,349	92,817,170	143,980,517	213,277,429
New construction..... \$	57,851,459	71,872,900	116,343,772	182,660,308
Additions, alterations, maintenance and repairs..... \$	16,362,890	20,944,270	28,636,745	30,417,121

<sup>1</sup> Includes subcontract work indicated in the lower part of the table.

### 13.—Value of Work Performed by the Construction Industry, by Provinces, Groups and Types of Construction, 1944-47

Province, Group or Type	1944	1945	1946	1947
<b>Province</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
Prince Edward Island.....	1,961,471	1,876,857	2,381,620	3,070,960
Nova Scotia.....	29,832,726	29,324,769	40,858,319	52,896,815
New Brunswick.....	13,657,043	14,373,424	27,761,110	42,674,675
Quebec.....	131,064,232	150,166,258	225,582,288	338,514,778
Ontario.....	165,395,169	216,545,127	347,616,749	501,650,833
Manitoba.....	19,357,321	28,382,523	43,462,500	61,254,260
Saskatchewan.....	12,423,241	17,482,076	29,277,215	40,008,598
Alberta.....	27,569,213	32,013,693	51,573,396	67,651,310
British Columbia and Yukon.....	48,577,643	53,415,106	100,148,206	148,813,448
<b>Totals.....</b>	<b>449,838,059</b>	<b>543,579,833</b>	<b>868,661,403</b>	<b>1,256,535,677</b>
<b>Group</b>				
Contractors, builders, etc.....	381,216,381	458,869,189	775,452,420	1,097,381,782
Municipalities.....	23,782,546	26,347,676	34,082,081	47,341,030
Harbour Commissions.....	1,304,594	1,646,552	1,797,187	2,027,643
Provincial Government Departments.....	36,520,088	43,135,675	43,943,196	93,172,148
Federal Government Departments.....	7,014,450	13,580,741	13,386,519	16,613,074
<b>Type of Work Performed</b>				
Building construction.....	220,299,949	288,092,582	490,437,540	658,383,053
Street, highway, power, water, etc., construction.....	142,431,180	146,216,938	220,549,198	395,025,698
Harbour and river construction.....	10,692,622	12,690,727	15,941,539	22,638,945
Trade construction.....	76,414,317	96,579,586	141,763,126	180,487,981

The value of work performed by the construction industry in 1947 amounted to \$1,256,535,677 as compared with \$868,661,403 in the preceding year, an increase of 45 p.c.

The value of building construction increased from \$490,407,540 in 1946 to \$658,383,053 in 1947. The construction of industrial buildings increased from \$151,305,541 to \$193,053,068 while the construction of armouries, barracks, hangars, etc., decreased from \$8,769,191 to \$7,534,016. The value of residential building advanced from \$193,626,880 to \$233,303,589, institutional from \$48,623,956 to \$73,361,869, and commercial from \$88,081,972 to \$151,130,511. Construction work involving engineering, harbours, rivers, etc., increased from \$236,490,737 in 1946 to \$417,664,643 in 1947.

In the industry as a whole, employment was provided for a total of 250,330 persons in 1947, recording an increase of 51,479 over the total for the preceding year, while the aggregate of salaries and wages at \$482,907,226 was \$138,014,169 higher. The cost of materials used in 1947 was \$654,996,225, an increase in expenditure for this purpose of \$195,030,484.

In 1947 reports received numbered 26,542 as compared with 23,793 in 1946. A good part of the increase was recorded in the number of reports received from owner-builders who erected their own homes because they were unable to obtain the services of a contractor. These statistics are included in the tables showing the operations of general contractors, trade contractors and subcontractors. Although the increase in the number of reports was considerable, the comparatively small extent of their operations does not appreciably affect other totals.

#### 14.—Principal Statistics of the Construction Industry, by Provinces and Groups, 1947

NOTE.—Comparable figures from 1935 are given in the corresponding table of previous Year Books beginning with the 1937 edition

Province or Group	Employees	Salaries and Wages	Cost of Materials	Values of Work Performed		
				New Construction	Alterations and Repairs	Total
Province	No.	\$	\$	\$	\$	\$
Prince Edward Island.....	638	1,074,926	1,554,701	2,155,854	915,106	3,070,960
Nova Scotia.....	12,842	23,091,619	24,460,044	33,132,689	19,764,126	52,896,815
New Brunswick.....	9,442	15,981,036	22,160,964	33,969,689	8,704,986	42,674,675
Quebec.....	70,970	132,495,276	181,616,839	275,848,737	62,666,041	338,514,778
Ontario.....	96,575	191,476,627	257,098,224	397,874,990	103,775,843	501,650,833
Manitoba.....	11,175	20,718,499	33,396,594	49,771,456	11,482,804	61,254,260
Saskatchewan.....	7,913	14,537,477	20,266,588	31,471,454	8,537,144	40,008,598
Alberta.....	12,261	23,493,667	34,409,472	55,278,021	12,373,289	67,651,310
British Columbia and Yukon	28,514	60,038,099	80,032,799	122,406,577	26,406,871	148,813,448
<b>Totals.....</b>	<b>250,330</b>	<b>482,907,226</b>	<b>654,996,225</b>	<b>1,001,909,467</b>	<b>251,626,210</b>	<b>1,256,535,677</b>
Group						
Contractors, builders, etc....	204,954	403,250,572	599,005,684	919,885,252	177,496,530	1,097,381,782
Municipalities.....	14,471	24,954,897	18,763,180	25,016,295	22,324,735	47,341,030
Harbour Commissions.....	685	1,267,316	670,211	334,286	1,693,357	2,027,643
Provincial Govt. Depts.....	24,775	43,969,653	29,450,100	48,863,458	44,308,690	93,172,148
Federal Govt. Depts.....	5,445	9,464,788	7,107,050	7,810,176	8,802,898	16,613,074
<b>Totals.....</b>	<b>250,330</b>	<b>482,907,226</b>	<b>654,996,225</b>	<b>1,001,909,467</b>	<b>251,626,210</b>	<b>1,256,535,677</b>

Table 15 classifies the various types of construction carried out in 1947. The term "Trade Construction" covers such items as bricklaying, carpentry, plumbing, heating, electrical work, etc., reported by contractors who confine themselves to a specific type of work. Details by provinces and more complete information regarding the industry will be found in the reports of the Dominion Bureau of Statistics on the construction industry.

#### 15.—Values of New and Other Construction, by Type, 1947

NOTE.—Comparable figures from 1935 are given in the corresponding table of previous Year Books beginning with the 1937 edition.

Type of Construction	New Construction	Repairs, Alterations and Maintenance	Total Value
	\$	\$	\$
<b>Building Construction—</b>			
Dwellings and apartments.....	218,310,302	14,993,287	233,303,589
Hotels, clubs and restaurants.....	16,869,406	1,316,336	18,185,742
Churches, hospitals, etc.....	69,163,703	4,198,166	73,361,869
Office buildings, stores, theatres and amusement halls.....	75,729,547	12,448,733	88,178,280
Grain elevators, factories, warehouses, farm and mine buildings.....	179,889,535	28,432,970	208,322,505
Garages and service stations.....	26,044,260	6,291,080	32,335,340
Radio stations.....	478,447	41,371	519,818
Armouries.....	744,709	715,018	1,459,727
Aeroplane hangars.....	667,497	—	667,497
All other building construction.....	1,445,016	603,670	2,048,686
<b>Totals, Building Construction.....</b>	<b>589,342,422</b>	<b>69,040,631</b>	<b>658,383,053</b>
<b>Street, Highway, Power, Water, etc., Construction—</b>			
Streets, highways and parks.....	140,330,868	61,108,716	201,439,584
Bridges, culverts, subways, etc.....	18,180,505	5,895,784	24,076,289
Water, sewage and drainage systems.....	30,422,407	6,155,957	36,578,364
Electric power plants, including dams, reservoirs, transmission lines and underground conduits...	104,736,956	11,095,024	115,831,980
Telephone and telegraph lines.....	679,148	166,878	846,026
Railway construction, steam and electric.....	3,794,950	1,860,317	5,655,267
Aerodromes or landing fields.....	3,365,215	73,494	3,438,709
All other construction, including installation of boilers and machinery.....	5,027,964	2,131,515	7,159,479
<b>Totals, Street, etc., Construction.....</b>	<b>306,538,013</b>	<b>88,487,685</b>	<b>395,025,698</b>
<b>Harbour and River Construction.....</b>	<b>14,663,627</b>	<b>7,975,318</b>	<b>22,638,945</b>
<b>Trade Construction.....</b>	<b>91,365,405</b>	<b>89,122,576</b>	<b>180,487,981</b>
<b>Grand Totals.....</b>	<b>1,001,909,467</b>	<b>254,626,210</b>	<b>1,256,535,677</b>



# CHAPTER XIX.—LABOUR\*

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

## Section 1.—The Government in Relation to Labour

### Subsection 1.—The Federal Department of Labour

The Department of Labour of Canada was established in 1900 by the Conciliation Act which provided machinery to aid in preventing and settling labour disputes, and required the Department to collect, compile and publish statistical and other information. The Department assumed, too, the administration of the Fair Wages Policy which was adopted in the same year for the protection of workmen employed in the execution of Federal Government contracts and on works aided by grants from public funds.

At the present time, in addition to the statutory duty of disseminating information concerning labour and industrial matters, the Minister is responsible for the administration of certain statutes; Conciliation and Labour Act; Fair Wages and Hours of Labour Act, 1935; Vocational Training Co-ordination Act, 1942; Unemployment Insurance Act, 1940; Reinstatement in Civil Employment Act, 1946; Government Annuities Act; and Industrial Relations and Disputes Investigation Act, 1948.

**Fair Wages Policy.**—Wages and hours of work on contracts for the manufacture of equipment and supplies for the Federal Government and for construction were governed for some years by a Resolution of the House of Commons (1900) which was later incorporated in an Order in Council and amended from time to time. Contracts for construction are now regulated under the Fair Wages and Hours of Labour Act, 1935, and by an Order in Council of June 7, 1922, as amended

\* Except as otherwise noted, this Chapter has been prepared or revised under the direction of A. MacNamara, C.M.G., Deputy Minister of Labour, Ottawa.

Apr. 9, 1924, and May 2, 1949. Hours on such work are limited to eight per day and 44 per week except in an emergency or when declared exempt by Order in Council; wages to be paid are those current for the type of work in the district concerned or, if there are no current rates, fair and reasonable ones determined by the Minister.

Wages and hours for work on contracts for equipment and supplies are regulated by the Order in Council of 1922 as amended on Dec. 31, 1934, and May 2, 1949. The hours on such work must be those fixed by the custom of the trade in the district where the work is performed, or fair and reasonable hours. The wages must be current or fair and reasonable, but in no event shall they be less than those established by statute or regulation of the province in which the work is being performed. In both construction and supplies contracts the term 'current wages' and, in supplies contracts, the term 'hours fixed by the custom of the trade' mean the standard conditions fixed by agreement between employers and unions or, failing agreement, the actual conditions prevailing.

**The Industrial Relations and Disputes Investigation Act.** — This legislation, which was given third reading in the House of Commons on June 17, 1948, and came into effect by proclamation on Sept. 1 of that year, revoked the Wartime Labour Relations Regulations, P.C. 1003, in effect since March, 1944, and repealed The Industrial Disputes Investigation Act which had been in force from 1907 until suspended by the Wartime Regulations in 1944.

The new Act protects proceedings commenced and decisions, orders and certifications made under the wartime legislation insofar as these involved services authorized by the Act.

The Act applies only to industries within federal jurisdiction, viz., navigation, shipping, interprovincial railways, canals, telegraphs, steamship lines and ferries both international and interprovincial, aerodromes and air transportation, radio broadcasting stations, and works declared by Parliament to be for the general advantage of Canada or two or more provinces. However, the Act provides that provincial authorities, if they so desire, may enact similar legislation for application to employees within provincial jurisdiction and make mutually satisfactory arrangements with the Federal Government for the administration of such legislation by the federal authorities.

In general, the Act in its important features provides that employees and employers shall have the right to organize and bargain collectively, that trade unions may be certified as bargaining agents for groups of employees, and that trade unions and employers are required upon notice to bargain collectively in good faith. The Act provides for invoking collective bargaining negotiations and for the mediation of Conciliation Officers and Conciliation Boards in reaching collective agreements. Employees may change bargaining agents at times under conditions specified in the Act which also prescribes conditions affecting the duration and renewal of collective agreements. Collective agreements are required to contain provision for the arbitration of disputes concerning the meaning or violation of such agreements and where such a provision is lacking application may be made for its establishment. The Act prohibits unfair labour practices, i.e., the interference with or domination of trade unions by employers or interference and discrimination in trade union activity. The conditions precedent to strike and lockout action are provided in the Act. Industrial Inquiry Commissions may be appointed to investigate industrial matters or disputes.

The Minister of Labour is charged with the administration of the Act and is directly responsible for the provisions, for the appointment of Conciliation Officers, Conciliation Boards and Industrial Inquiry Commissions, for consent to prosecute and for the making of complaints that the Act has been violated or that a party has failed to bargain in good faith.

The Canada Labour Relations Board (successor to the Wartime Labour Relations Board) administers provisions concerning the certification of bargaining agent, the writing of a procedure into a collective agreement for the final settlement of disputes concerning the meaning or violation of such agreement, and the investigation of complaints made to the Minister that a party has failed to bargain collectively.

Between March, 1944, and August, 1948, the Wartime Labour Relations Board received 700 applications for the certification of bargaining representatives, 388 of which were granted. From Sept. 1, 1948, to June 30, 1949, the Canada Labour Relations Board dealt with 68 applications for certification, 32 of which were granted.

Of the 524 industrial disputes dealt with under the conciliation provisions of the Wartime Labour Relations Regulations, 231 were settled by Conciliation Officers and 186 by Conciliation Boards; the conciliation procedure failed to avert work stoppages in only 12 of the 524 cases. From Sept. 1, 1948, to June 30, 1949, 35 disputes were dealt with under the new legislation; as at June 30, 1949, 18 of these disputes had been settled by Conciliation Officers and two by Conciliation Boards.

### Subsection 2.—Provincial Labour Departments

Labour legislation in Canada is, for the most part, a matter for the Provincial Legislatures since it usually governs, in some respects, the contract of service between employer and employee or the contract between members of a trade union which forms the basis of the union, or it regulates conditions in local work-places. The right to contract is a civil right and the British North America Act, which distributes legislative powers between the Parliament of Canada and the Provincial Legislatures, grants to the provinces power to enact laws in relation to "civil rights" and, with certain exceptions, "local works and undertakings".

In each province, except Prince Edward Island, a special Department or Bureau is charged with the administration of labour laws. In Alberta, the Board of Industrial Relations under the Minister of Industries and Labour administers statutes concerning wages, hours and labour welfare, and the Department of Public Works has charge of factory legislation. Other provinces have Departments of Labour. Legislation for the protection of miners is administered by Departments dealing with mines.

Factory legislation in eight provinces and shops legislation in several provinces prohibit child labour, regulate the hours of women and young persons, and provide for safety and health. Other labour statutes in most provinces include minimum-wage legislation and maximum-hours laws, laws for the settlement of industrial disputes, legislation to ensure freedom of association and promote collective bargaining, and laws to provide for apprenticeship and the licensing of certain classes of workmen. The Industrial Standards Acts in Saskatchewan, Ontario, New Brunswick and Nova Scotia, the Alberta Labour Act and the Fair Wage Act in Manitoba enable the wages and hours of work agreed upon by representatives of employers and employed in designated trades to be made legal throughout the trade concerned. The Quebec Collective Agreement Act permits agreements between



employers and trade unions to be made binding on all in the industry. Workmen's compensation laws in all provinces are administered by independent boards except in Newfoundland where claims for compensation are settled in the Courts.

For information regarding individual Provincial Departments of Labour, reference should be made to the annual reports of the Departments concerned or to the Deputy Ministers of Labour of the Provincial Governments.

### Subsection 3.—Provincial Labour Legislation in 1948-49

**Prince Edward Island.**—A *Workmen's Compensation Act*, providing for a compulsory collective liability system similar to that in force in most provinces, was enacted. Benefits payable are for the most part the same as those payable under the Nova Scotia or New Brunswick Acts.

The *Trade Union Act* was amended to repeal sections added in 1948 requiring trade unions to be registered with the Provincial Secretary and prohibiting a closed shop contract and the affiliation of a union in the Province with a national or international organization. The trade of 'garage mechanic' was added to the list of designated trades under the *Apprenticeship Act, 1944*.

**Nova Scotia.**—The *Trade Union Act* was amended in several respects. Trade unions are now required to have a written constitution. In a vote taken under the direction of the Labour Relations Board to determine whether a trade union shall represent a unit for bargaining purposes, the Board must be satisfied that not less than 60 p.c. of the employees in the unit have voted and that a majority of such 60 p.c. have selected the trade union to be the bargaining agent on their behalf.

The Board may now revoke the certification of a trade union as a bargaining agent only on an application for revocation of such certification, or on an application by another union for certification as bargaining agent for the same unit. Power is given to the Board to make regulations prescribing what evidence shall constitute proof that a person is a member in good standing of a trade union.

An amendment to the section regarding check-off votes provides for the check-off when a majority of the eligible voters vote in favour of it. In the case of certified unions, eligible voters are defined as trade union members in the unit for which the union has been certified and, in the case of uncertified unions, as trade union members in a unit designated by the Minister as the appropriate unit for the purposes of such vote. Previously, all the employees of the employer were permitted to vote.

Amendments to the *Workmen's Compensation Act* increase compensation in fatal cases in respect to each child under 16 from \$10 to \$12.50 a month, with a maximum of \$100 a month for widow and children. The previous maximum for consort and children was \$90. Where dependants are orphans, compensation is increased from \$20 to \$22.50 a month with a maximum of \$90, instead of \$80, as before. In permanent total disability cases, the minimum weekly payment is increased from \$12.50 to \$15. The maximum earnings to be reckoned for compensation purposes are raised from \$2,000 to \$2,500 a year.

The *Apprenticeship Act* was amended to increase from 2,000 to 4,000 hours the minimum time for which an apprenticeship contract may be made. The Act is under the direction of the Director of Apprenticeship rather than inspectors under any other Act. A further revised section provides that remuneration may be paid to members of the Provincial Apprenticeship Committee. The section em-

powering the Governor in Council to make regulations was re-written to make certain changes with respect to the issuance of certificates of apprenticeship and of certificates of qualification.

A new *Steam Boiler and Pressure Vessel Inspection Act* applies, in addition to high pressure steam boilers, to unfired pressure vessels having an internal or external pressure in excess of 15 lb. per square inch and having an inside diameter of more than six inches. The penalties for violation of the Act are increased.

Acts regulating the operation of coal and metal mines were amended with regard to certain safety measures and to the reporting of accidents.

The *Vocational Education Act* provides for agreements between the Governor in Council and a municipality or between one municipality and another for the purpose of building and operating vocational high schools.

**New Brunswick.**—The *New Brunswick Labour Relations Act*, in force July 1, 1949, is almost identical with the federal *Industrial Relations and Disputes Investigation Act*. Like the federal statute, it provides for the certification of trade unions as bargaining agents, the conciliation of disputes, the prohibition of strikes and lockouts until collective bargaining and conciliation procedures have been complied with, and penalties for unfair labour practices.

The *Trades Examination Act*, 1949, provides for the issuance of certificates of qualification as journeymen to workmen in the electrical, electric welding and gas-welding trades.

The *Apprenticeship Act* was amended to permit the Apprenticeship Committee to delegate its powers to the Director, and to provide for an appeal to the Committee within 60 days from actions taken by the Director. The Government was empowered to make regulations fixing the compensation payable to a prospective apprentice while taking a pre-apprenticeship course.

**Quebec.**—An *Act respecting Municipal and School Corporations and their Employees* provides for compulsory arbitration of disputes between municipal and school corporations and their employees by the setting up of three-member councils of arbitration which are to hold office for a term of two years. Two of the arbitrators represent the corporation and the employees, respectively; the third, who represents the public and acts as chairman, is appointed by the Lieutenant-Governor in Council. Arbitration Board decisions and collective agreements are to remain in force for two years. Agreements and decisions which involve increased expenditure cannot take effect before the end of the current fiscal year.

An amendment to the *Workmen's Compensation Act* increases the membership of the Workmen's Compensation Commission from four to five.

The *Masters and Servants Act* and the *Fisherman's Engagement and Wage Act* were repealed.

**Ontario.**—Under the *Workmen's Compensation Act*, from Jan. 1, 1950, a workman who is totally disabled by an accident occurring out of and in the course of his employment is entitled to receive 75 p.c. of his average weekly earnings. In a case of partial disability, 75 p.c. of the difference in earnings before and after the accident is payable. The previous rate of compensation was 66 $\frac{2}{3}$  p.c. The maximum average earnings on which compensation may be based is raised from \$2,500 to \$3,000 a year.

Provision for higher benefits in death cases was made by increasing the maximum monthly amount of compensation payable to all dependants, exclusive of burial expenses and the lump sum of \$100, from two-thirds of average earnings to 100 p.c. of average monthly earnings. Benefits to other dependants when there is no widow or child are to be determined by the Board according to the pecuniary loss sustained, up to a limit of \$100 a month.

Compensation is payable to the age of 18 in order to continue a child's education, if the Board sees fit. The amending Act permits continued payments to the end of the school year if the child reaches the age of 18 during the school year.

A minor change in the *Industrial Standards Act* provides that for an inter-provincially competitive industry the zone designated by the Minister of Labour must be the whole of Ontario and any industrial standards schedule established for the industry may provide for varying wages and hours and days of labour for different areas within the zone.

The *Police and Fire Departments Acts* were revised. No material change was made in the sections dealing with collective bargaining and the arbitration of disputes but provision was made for provincial grants to municipalities having a police or fire department if certain conditions were met.

**Manitoba.**—The *Manitoba Labour Relations Act*, 1948, was patterned after the federal *Industrial Relations and Disputes Investigation Act*. It repealed the *Manitoba Wartime Labour Relations Regulations Act*, 1944, and the *Strikes and Lock-outs Prevention Act*, 1937. The former had applied the Federal Wartime Labour Relations Regulations (P.C. 1003) to industries normally under provincial jurisdiction.

The *Hours of Work Act*, effective July 1, 1949, limits working hours in the more important industries of the Province to eight and 48 for male workers and to eight and 44 for females unless time and one-half is paid after those limits. Daily or weekly hours may be exceeded, in certain cases, without payment of overtime rates, with the approval of the Manitoba Labour Board. Exempted are: persons employed in an undertaking employing only the employer's family, those chiefly engaged in supervisory, management or confidential duties, travelling salesmen, watchmen and caretakers.

Two new Acts, to become effective on proclamation, deal with the inspection and operation of steam and pressure plants and provide for the issuance of operating engineers' and firemen's certificates.

**Saskatchewan.**—Changes in the *Workmen's Compensation (Accident Fund) Act* included a provision for higher benefits for totally disabled workers. A totally disabled worker with dependants who is receiving compensation at a rate of less than \$1,200 a year may be paid the following additional amounts, at the discretion of the Workmen's Compensation Board: \$10 a month for a wife or invalid husband, and \$5 a month each for the first and second child under 16. Where the only dependants are children, the increase may be \$10 a month for the first child, and \$5 each for the second and third. Where dependants are other than consort or children, compensation may be increased by a reasonable sum to be determined by the Board. The total compensation for complete disability must not, however, exceed \$1,200 a year. The minimum payment in permanent total disability cases is now \$15 a week. Formerly, it was \$15 or if the workman's average earnings were less than \$15, the amount of such earnings.



By an amendment to the *Hours of Work Act*, caretakers and janitors employed in offices and commercial buildings were brought under the Act. Those working in buildings used principally for residential purposes are exempted. The stipulation against a reduction of wages in undertakings where hours were reduced to 44 as required by the Act unless time and one-half is paid, was extended to Apr. 1, 1950.

Janitors and watchmen were brought within the scope of the *One Day's Rest in Seven Act*.

The *Minimum Wage Act* was amended to require an employer to give a week's written notice of intention to lay off an employee who has been in his service for three months or more. The Act formerly required a week's notice to be given in cases of discharge.

A new section inserted in the *Factories Act* empowers the Minister of Labour to impose on the owner of a factory, rather than on the occupier, any obligation imposed by the Act or regulations to install equipment or make alterations in premises which are occupied by an employer other than the owner.

The *Teachers' Salary Negotiation Act* was passed to establish procedure for collective bargaining between teachers and boards of school trustees.

A new Act sets forth the duties and powers of inspectors and lays down requirements concerning construction, installation, operation and repair of passenger and freight elevators. An Act was also passed respecting electrical inspection and licensing.

**Alberta.**—No labour legislation was enacted at the 1949 session of the Alberta Legislature. Amendments to the *Boilers Act* make the sections of the Act relating to pressure vessels applicable to liquefied petroleum gas containers.

**British Columbia.**—The *Apprenticeship Act* was amended giving more authority to the Minister of Labour in exempting minors from the requirement of entering into a contract of apprenticeship. Persons under 21 years of age working in designated trades under conditions that prevent them from receiving the necessary training to become proficient at those trades may now be exempted. A minor who has learned his trade without entering into a contract of apprenticeship and who has, in the opinion of the Provincial Apprenticeship Committee, the skill required for a fully qualified tradesman in that trade, is no longer prevented from working at his trade.

An amendment to the *Municipal Act* provides for compulsory arbitration in a dispute between a municipality or Board of Police Commissioners and the firemen and policemen in their employ.

**Northwest Territories.**—The *Workmen's Compensation Ordinance*, 1948, effective Mar. 1, 1949, requires employers to obtain, in an approved company, accident insurance providing for payment of compensation to their workmen for personal injury by accident or disability by reason of certain industrial diseases. If an employer fails to enter into a contract of insurance he is liable to a fine not exceeding \$500, and, in addition, the Commissioner of the Northwest Territories may refuse to grant him a licence to carry on business or may cancel such licence if already granted.

The Commissioner may exempt from the application of the Ordinance any employer who has made other satisfactory arrangements for the protection of his workmen. Industries and diseases covered by the Ordinance have been prescribed by regulation.

If compensation under a policy of insurance is, in the Commissioner's opinion, less than the amount which would be payable for a similar disability under the Workmen's Compensation Act of British Columbia, he may pay the difference out of territorial funds, provided that application has been made by the employee or his dependants within a year after payment.

**Yukon.**—The *Workmen's Compensation Ordinance* of Yukon Territory was amended in 1948 to restore certain sections which were omitted in the revision of 1947. One of these provides that a workman who loses a member shall be entitled, in addition to the lump sum provided for his specific injury, to be paid a weekly payment of 50 p.c. of his average daily wages while he is under treatment and until he is restored to fair health but not for longer than 12 months. The other section provides that compensation for the loss of a tooth shall be the actual cost of replacing it, the dental services required being determined by a qualified dentist and approved by a qualified medical practitioner provided and paid by the employer.

## Section 2.—Occupations of the Gainfully Occupied Population

Detailed statistics on the occupations of the Canadian people in 1941 will be found in Vol. VII, Census of Canada, 1941. A special review of this subject, based on the 1941 Census figures, appears at pp. 1062-1073 of the 1943-44 Year Book, and further information at pp. 1168-1169 of the 1945 edition.

## Section 3.—Employment and Unemployment

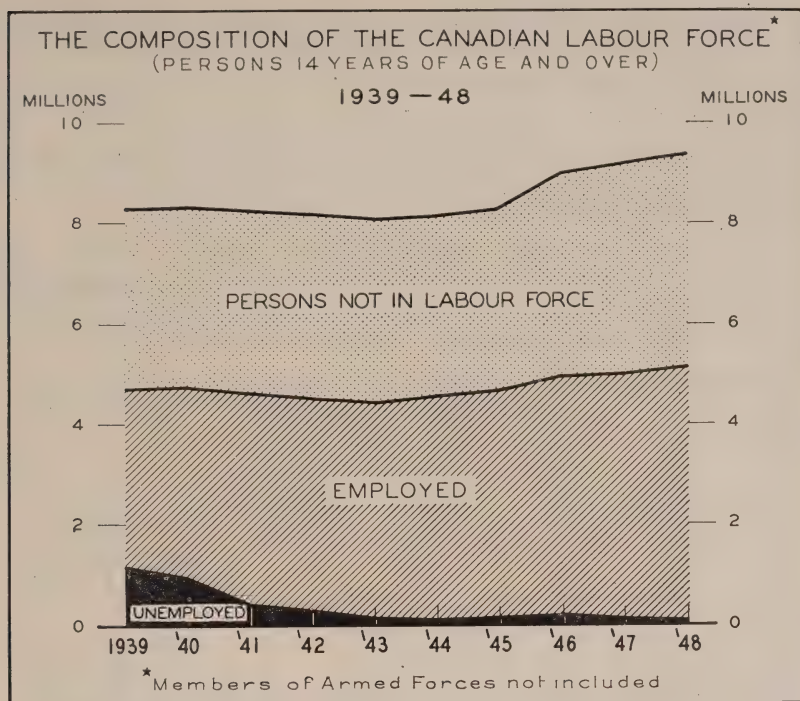
### Subsection 1.—Labour Force Surveys\*

During the War it became increasingly apparent that up-to-date information on the size and characteristics of the labour supply was a necessity. The possibility of disturbed economic conditions in the post-war period emphasized the need for a current and periodic analysis of the state of Canadian employment. It was clear that frequent periodic enumeration of the whole population would be too expensive and time consuming and that sampling techniques should be used. Designed to meet this need, the first labour force survey on a sample basis was conducted in the autumn of 1945, and quarterly surveys have been carried out since that time.

A multi-stage area-sampling technique was used involving the selection of progressively smaller sample areas, and ultimately households. Random methods of choice were used at every stage of selection so that all members of the population had an equal chance of inclusion. At the time the sample was designed it was considered impracticable because of inaccessibility and high cost of enumeration to include certain remote areas of the country and Indians living on reservations. These areas, including about 2 p.c. of the population, were originally given no chance of inclusion in the sample, and the estimates of the labour force are not considered to represent them. However, the sample is currently being modified to take these remote and inaccessible areas into account.

The estimates of the labour force are restricted to the civilian labour force, since net strength of the Armed Forces is obtainable directly from official sources. Inmates of institutions are also excluded because they are not in the competitive labour market.

\* Revised in the Special Surveys Division, Dominion Bureau of Statistics.



The present sample includes about 25,000 households in approximately 100 different areas in Canada. These 100 areas include the 27 cities having a population of 30,000 or over, in addition to some of the smaller cities and various rural areas. Once a year, at the midsummer survey, the sample in the metropolitan areas of cities of 30,000 and over is increased to include 2 p.c. of the households instead of the usual 1 p.c. coverage, in order to improve the estimates of inter-provincial migration obtained from the sample.

The labour force surveys provide an exhaustive classification of persons 14 years of age or over on the basis of their activity during a specified week, which is, in each case, the week which precedes the beginning of the survey. Information on the part of the population not in the labour force is also collected. These non-workers are classified as keeping house, going to school, retired or voluntarily idle, too old or permanently unable to work.

The information gathered on the labour force is divided for presentation into two groups: (1) employed, (2) unemployed. The estimates of the employed are classified by region, sex, age, hours worked, occupation, industry and occupational status. Special estimates are given for women employed in domestic service, and employed women by marital status.



The employed category includes persons who worked during the survey week, as well as those temporarily absent from their jobs because of illness, vacation, bad weather, labour disputes or temporary layoffs. Estimates of the latter are given by reason for absence.

Persons looking for work, but not working during the survey week, are counted as unemployed. Estimates of this group are classified by region, sex, age, and number of months looking for work.

The estimates of the labour force surveys are all subject to sampling error, which tends to increase as the size of the estimates decreases. Accordingly, the reliability of the smaller estimates is less than that of the larger estimates. Estimates of less than 10,000 should not be used without careful reservations.

**1.—Estimated Distribution of Employment in Certain Industries in Canada,  
November, 1945, to March, 1949**

Date of Survey	Number Employed in—					
	Agriculture	Forestry	Fishing and Trapping	Mining, Quarrying and Oil	Manufacturing	Construction
	'000	'000	'000	'000	'000	'000
Nov. 17, 1945..	1,058	81	28	74	1,139	184
Feb. 23, 1946..	1,083	101	30	80	1,149	153
June 1, 1946..	1,274	41	29	73	1,220	240
Aug. 31, 1946..	1,317	68	29	72	1,194	266
Nov. 9, 1946..	1,071	130	24	73	1,265	243
Mar. 1, 1947..	931	144	20	70	1,269	187
May 31, 1947..	1,163	60	32	75	1,286	253
Aug. 16, 1947..	1,299	54	22	68	1,237	283
Nov. 8, 1947..	1,068	117	18	65	1,242	284
Feb. 21, 1948..	965	140	20	68	1,236	219
June 5, 1948..	1,186	63	25	73	1,261	295
Sept. 4, 1948..	1,247	58	19	70	1,290	323
Nov. 20, 1948..	986	123	26	86	1,290	317
Mar. 5, 1949..	956	113	24	83	1,269	251
	Trans- portation, Storage and Communi- cation	Public Utility Operations	Trade	Finance, Insurance and Real Estate	Service	Total
	'000	'000	'000	'000	'000	'000
Nov. 17, 1945..	330	31	543	110	748	4,326
Feb. 23, 1946..	321	31	522	111	731	4,312
June 1, 1946..	335	35	561	122	772	4,702
Aug. 31, 1946..	353	33	604	122	802	4,860
Nov. 9, 1946..	359	33	589	133	813	4,733
Mar. 1, 1947..	371	34	588	129	822	4,565
May 31, 1947..	369	39	593	128	823	4,821
Aug. 16, 1947..	382	41	671	131	820	5,008
Nov. 8, 1947..	362	37	680	132	842	4,847
Feb. 21, 1948..	346	40	657	141	837	4,669
June 5, 1948..	370	40	637	136	862	4,948
Sept. 4, 1948..	384	44	643	136	828	5,042
Nov. 20, 1948..	388	40	659	138	800	4,858
Mar. 5, 1949..	368	45	637	144	810	4,700

## 2.—Summary Statistics Resulting from the Labour Force Surveys, by Regions, Mar. 1, 1947, to Mar. 5, 1949

NOTE.—Figures for the period Nov. 17, 1945, to Nov. 9, 1946, will be found at pp. 641-42 of the 1948-49 edition of the Year Book.

Region and Date of Survey	Employed	Unemployed	Civilian Labour Force	Not in Labour Force
	'000	'000	'000	'000
<b>Maritime Provinces—</b>				
Mar. 1, 1947.....	411	21	432	426
May 31, 1947.....	408	21	429	407
Aug. 16, 1947.....	430	15	445	395
Nov. 8, 1947.....	421	17	438	403
Feb. 21, 1948.....	400	25	425	420
June 5, 1948.....	417	15	432	414
Sept. 4, 1948.....	434	11	445	403
Nov. 20, 1948.....	424	18	442	408
Mar. 5, 1949.....	403	25	428	425
<b>Quebec—</b>				
Mar. 1, 1947.....	1,277	46	1,323	1,223
May 31, 1947.....	1,319	28	1,347	1,187
Aug. 16, 1947.....	1,348	23	1,371	1,172
Nov. 8, 1947.....	1,353	22	1,375	1,178
Feb. 21, 1948.....	1,300	48	1,348	1,220
June 5, 1948.....	1,366	26	1,392	1,188
Sept. 4, 1948.....	1,384	20	1,404	1,188
Nov. 20, 1948.....	1,360	30	1,390	1,211
Mar. 5, 1949.....	1,318	67	1,385	1,241
<b>Ontario—</b>				
Mar. 1, 1947.....	1,605	40	1,645	1,427
May 31, 1947.....	1,708	24	1,732	1,350
Aug. 16, 1947.....	1,769	19	1,788	1,303
Nov. 8, 1947.....	1,726	22	1,748	1,369
Feb. 21, 1948.....	1,663	40	1,703	1,422
June 5, 1948.....	1,758	23	1,781	1,370
Sept. 4, 1948.....	1,772	19	1,791	1,375
Nov. 20, 1948.....	1,725	25	1,750	1,427
Mar. 5, 1949.....	1,695	56	1,751	1,457
<b>Prairie Provinces—</b>				
Mar. 1, 1947.....	888	21	909	790
May 31, 1947.....	972	9	981	718
Aug. 16, 1947.....	1,022	8	1,030	684
Nov. 8, 1947.....	937	13	950	759
Feb. 21, 1948.....	905	23	928	791
June 5, 1948.....	981	8	989	739
Sept. 4, 1948.....	1,012	8	1,020	714
Nov. 20, 1948.....	926	19	945	795
Mar. 5, 1949.....	883	29	912	846
<b>British Columbia—</b>				
Mar. 1, 1947.....	384	13	397	364
May 31, 1947.....	414	9	423	356
Aug. 16, 1947.....	439	8	447	336
Nov. 8, 1947.....	410	13	423	370
Feb. 21, 1948.....	401	20	421	380
June 5, 1948.....	426	10	436	377
Sept. 4, 1948.....	440	9	449	371
Nov. 20, 1948.....	423	14	437	388
Mar. 5, 1949.....	401	22	423	405
<b>Totals—</b>				
Mar. 1, 1947.....	4,565	141	4,706	4,230
May 31, 1947.....	4,821	91	4,912	4,018
Aug. 16, 1947.....	5,008	73	5,081	3,890
Nov. 8, 1947.....	4,847	87	4,934	4,069
Feb. 21, 1948.....	4,669	156	4,825	4,233
June 5, 1948.....	4,948	82	5,030	4,088
Sept. 4, 1948.....	5,042	67	5,109	4,051
Nov. 20, 1948.....	4,858	106	4,964	4,229
Mar. 5, 1949.....	4,700	199	4,899	4,371

### Subsection 2.—Employment and Unemployment Statistics of the Census

Detailed statistics of earnings, employment and unemployment of the Canadian people as at June 1, 1941, will be found in Vol. VI, Census of Canada, 1941.

### Subsection 3.—Employment and Payrolls as Reported by Employers\*

For over 25 years, the Dominion Bureau of Statistics has made monthly surveys of employment in the major industries, excluding agriculture, domestic and personal service, and government administration. The broad industrial groups covered by these surveys are: logging, mining, manufacturing, construction and maintenance, transportation and storage, communications, trade, services (chiefly hotels, restaurants, laundries and dry-cleaning plants) and finance. Early in 1941, the surveys of employment were extended to cover the current earnings of those in recorded employment and, since late in 1944, monthly data on man-hours and hourly earnings also have been collected. Inquiries into the sex distribution of the persons on the payrolls of reporting establishments were undertaken on a monthly basis commencing Feb. 1, 1946, replacing the annual and the semi-annual surveys of the immediately preceding years.

For practical reasons associated with problems of collection,† the current inquiries are limited to firms and branches ordinarily employing 15 or more persons. The restriction results in the inclusion of industrial samples of varying size in the monthly survey, the variation depending upon the organization of the industry in large or in small units; from the equally important geographical aspect, however, much greater uniformity exists in the provincial coverage of total employees. It is important to note that in all cases the coverage is large; it is estimated that some 19,000 firms co-operating in the nine major industrial groups in 1948 showed approximately 82 p.c. of the total wage-earners and salaried employees employed in the same industries throughout Canada.

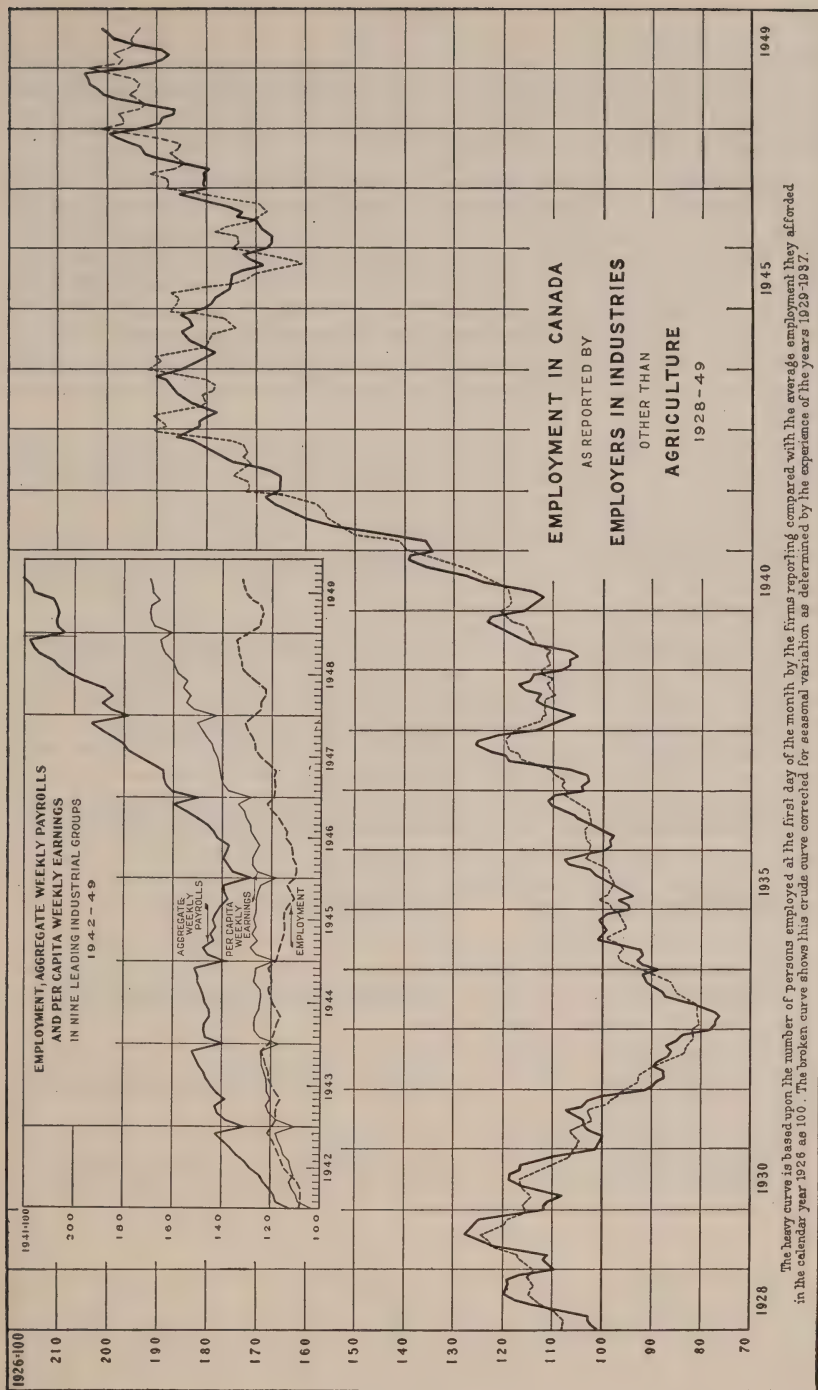
For the second year in succession industrial employment in Canada reached a new all-time high level in response to continued heavy public demand for goods and services. The annual employment index for 1948 (based on 1926 = 100), was 195·8, an increase of 4·2 p.c. over the index of 187·9 for 1947, when reconversion was almost completed. Although production in 1948 was facilitated by better supplies of material and labour, there were still some shortages, particularly in the building industry. Labour relations improved considerably as compared with the preceding year; the working time lost due to industrial disputes was approximately 37 p.c. of the time lost in 1947, while the number of workers involved in these disputes in 1948 was less than 40 p.c. of those directly affected in 1947. The European Recovery Program and the purchases made in Canada under its provisions resulted in greater domestic exports in 1948 than in 1946 or 1947 and this reflected in higher levels of employment in Canada in 1948.

In 1948 the general index of employment followed its usual seasonal pattern steadily declining from Jan. 1 to May 1. During this period, the index dropped from 193·7 to 186·5, a somewhat greater reduction than that indicated in the same

\* Revised in the Employment Section, Labour and Prices Division, Dominion Bureau of Statistics.

† The methods used in preparing the current statistics of employment and payrolls are explained in the Monthly Bulletin on these subjects.





period in any other year since 1944. From the beginning of May, the index continued to ascend until it reached its all-time maximum of 204.3 at Dec. 1, exceeding the figure for Dec. 1, 1947 by 4.7 points.

Employment in manufacturing, although still below the peak reached in 1943, was maintained at a generally high level in spite of some recessions at the beginning of several months in 1948. At Dec. 1, the employment index, at 207.9, was 4.0 p.c. above the Jan. 1 figure. During the same period the index of employment for the reporting non-manufacturing industries taken as a whole increased by 10.1 p.c. Both of these advances were considerably less than those of 6.8 p.c. and 12.7 p.c. in the manufacturing and the non-manufacturing industries, respectively, reported in 1947 over 1946. Within the manufacturing group in 1948 there was a slightly greater increase in employment in the durable goods group than in the non-durable group.

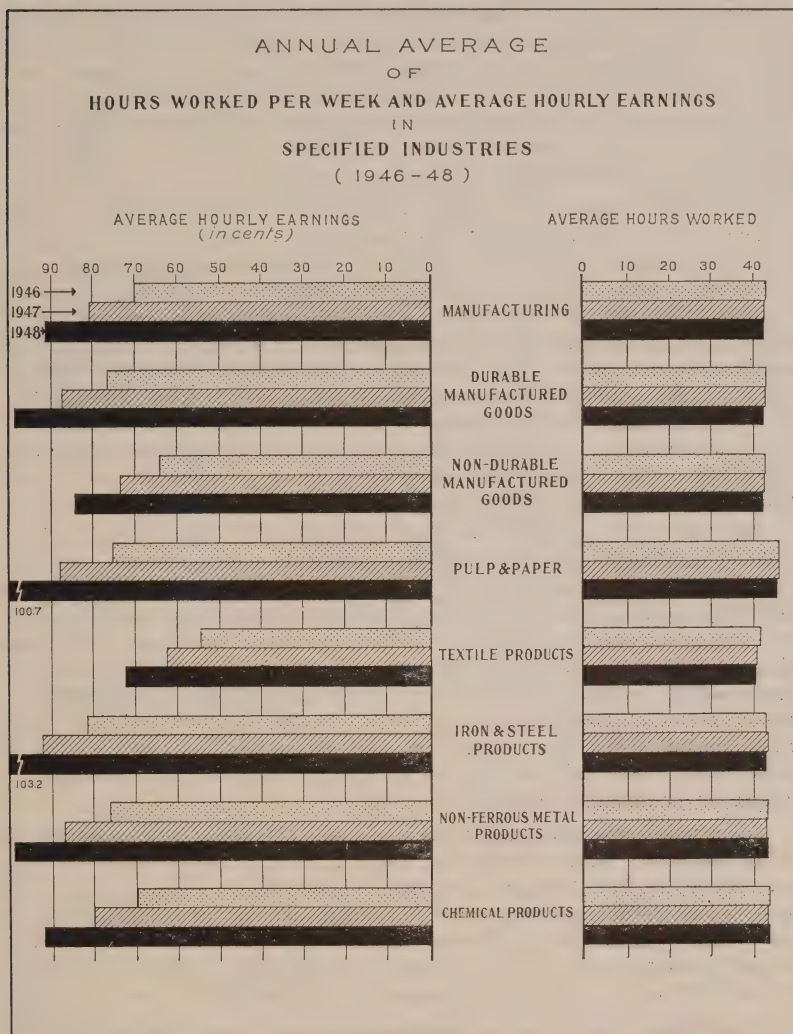
Gains were noted in all the major non-manufacturing industries with the exception of logging. The increases in the index numbers for 1948 over 1947 ranged from 2.6 p.c. in transportation and 4.8 p.c. in services to 9.8 p.c. in mining and 10.3 p.c. in construction. In all cases except mining the advances were less than the percentage increases shown in a similar comparison between 1947 and 1946. During 1948, however, the employment indexes reached new high levels in all non-manufacturing industries except mining and logging.

The proportion of women on the staffs of the reporting establishments declined slightly in 1948. No change in the proportion of women workers took place in the non-durable manufacturing group, nor in the non-manufacturing industries taken as a unit. There was a reduction, however, in the durable goods group of manufacturing, indicating that post-war adjustment was completed. The proportion of women per 1,000 workers of both sexes in the nine leading industries was 219 at Oct. 1, 1948, compared with 220 at Oct. 1, 1947, and 271 at Oct. 1, 1944, when the ratio was at its maximum. Although the proportion of women declined in the twelve months, the number of female employees reported increased by 2 p.c. at Oct. 1, 1948, as compared with a year earlier. The increase among male workers in the same period was 2.6 p.c.

At Oct. 1, 1948, there were 226 women per 1,000 workers in recorded employment in manufacturing as compared with 229 at Oct. 1, 1947. In 1939, the general proportion of women per 1,000 workers, as recorded by the Annual Census of Manufactures, was 220 women. In the non-manufacturing industries, the proportion of women decreased except in mining and construction, in which few of the reported employees were women. The most marked decline in the proportion of women workers in leading establishments between Oct. 1, 1947, and Oct. 1, 1948, was noted in services, the ratio of female employees falling from 536 per 1,000 workers at the former date to 515 at the latter, and in trade, in which the proportion dropped from 402 to 390 per 1,000. During the same period, the communications industry reported larger proportions of female workers than any other major industrial division. The ratios of female workers in the major industry groups are given in Table 3.

The 1948 annual index of payrolls for the eight leading industries increased by 15.6 p.c. over the preceding year. This increase was due not only to higher employment, but was also a result of numerous upward adjustments in wage rates. The average index (June 1, 1941=100) was 199.6, compared with 172.6 for 1947 and 142.4 for 1946. The general index increased steadily from month to month in 1948 with the exception of Apr. 1 and May 1. The declines at those dates were not only the

result of the statutory holidays in the pay periods for which data were furnished, but were also due to curtailment in employment. While the employment index increased by 5.4 p.c. from Jan. 1 to Dec. 1, 1948, the payrolls index rose by 22.8 p.c. in the same period. The increases indicated in the same comparison in 1947 were 10.3 p.c. in employment and 29.4 p.c. in payrolls. The most marked gains in the year took place in the annual payroll indexes for construction and mining.



The trend of weekly earnings in 1948 continued upwards. The annual per capita figure in the eight leading industries was \$40.11, the highest in the record of over seven and one-half years. This figure was 11 p.c. above the average weekly earnings



of \$36.15 reported in 1947. Since June 1, 1941, when the monthly record of payrolls was commenced, to Dec. 1, 1948, the general increase in the average weekly earnings was 67.2 p.c. In each of the main industrial divisions, the average weekly salaries and wages exceeded those reported at any earlier date. The increases in 1948 over 1947 varied from 9.4 p.c. in communications to 13.4 p.c. in mining. The general average of weekly earnings in the manufacturing industries was \$40.91, a gain of 11.9 p.c. over the figure of \$36.57 recorded for 1947.

As has been the case since the record of payrolls was instituted in 1941, the 1948 per capita figure for British Columbia, at \$42.62, was higher than that for any other province. Similarly Windsor, as a result of the large proportion of workers in the automotive industry, maintained a substantial lead over the other seven larger cities, its annual average of weekly salaries and wages being \$47.42. The average earnings indicated in Fort William-Port Arthur, Hamilton, Toronto and Vancouver also exceeded the general figure for Canada as a whole.

There were widespread increases in the average hourly earnings of wage-earners in 1948. In manufacturing, the annual figure advanced from 80.3 cents in 1947 to 91.3 cents in 1948, or by 13.7 p.c. The gain was slightly greater in the durable goods group, the average hourly earnings rising from 87.2 cents in 1947 to 98.4 cents in 1948. In the latter year, the annual average of 84.0 cents in the non-durable goods group exceeded the 1947 figure by 10.6 cents. Within the main manufacturing groups, the highest annual average of hourly earnings in 1948 was recorded in the non-metallic mineral products group, in which the figure stood at 107.8 cents per hour; the employment of many highly-skilled wage-earners in the petroleum products group contributed to the unusually high rate. The annual average also exceeded \$1 an hour in the pulp and paper and iron and steel product groups, and in numerous groups of several other major industries.

Statistics of average hourly earnings are tabulated for manufacturing in the provinces and leading cities. As has been usual, the average hourly earnings in leading establishments were higher in British Columbia than in any other province, the 1948 figure being 108.0 cents. The earnings in the other provinces varied from 82.7 cents an hour in New Brunswick, to 95.8 cents an hour in Ontario. In the larger cities, the highest hourly earnings in 1948 were reported in Vancouver, where the figure was 107.7 cents. The annual averages in manufacturing in the other cities were as follows: Montreal, 87.1 cents; Toronto 95.5 cents; Hamilton, 101.4 cents; and Winnipeg, 88.3 cents. Figures for the average earnings for the cities and the provinces, are greatly affected by the industrial, sex and age distributions of the workers for whom information is available.

Fewer wage-earners are paid by the hour in the non-manufacturing groups than in manufacturing. Data are available, however, for considerable numbers of wage-earners in mining, local transportation, building construction, highway construction, hotels and restaurants and laundries. The annual average of hourly earnings for persons employed in leading mining establishments was 111.1 cents in 1948 as compared with 98 cents in 1947. In building construction the reported wage-earners received 100.9 cents compared with an average of 91 cents in the preceding year.

The average hours worked in leading manufacturing establishments during the four years for which information is available have steadily diminished. In 1948 the decline was 0.3 hours, the average being 42.2 hours per week. The reduction was slightly greater in the durable goods industries, in which the reported wage-earners averaged 42.3 hours as compared with 42.7 hours in 1947. In

the non-durable group of manufacturing the mean was 42 hours per week in 1948 and 42.3 hours in 1947. In the non-manufacturing groups the average hours of work declined in 1948 in local transportation, highway construction and services. The average working week was slightly longer in mining and building construction; in the case of the former industry, a decline in the time lost as a result of industrial disputes was a factor in the higher average in 1948 as compared with 1947.

### 3.—Percentage of Women Employed in Leading Industrial Groups as at Oct. 1, 1943-48

Industrial Group	1943	1944	1945	1946	1947	1948
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Manufacturing <sup>1</sup> .....	27.9	28.3	26.0	24.1	22.9	22.6
Durable goods.....	19.1	18.8	13.8	11.7	10.9	10.5
Non-durable goods.....	40.4	40.2	37.6	35.1	34.4	34.4
Communications.....	52.6	55.5	55.8	54.7	52.8	52.3
Transportation.....	8.0	8.5	8.2	6.8	6.5	6.1
Services <sup>2</sup> .....	58.0	58.2	57.6	54.4	53.6	51.5
Trade.....	49.1	49.3	46.8	41.9	40.2	39.0
Finance.....	50.8	53.9	53.3	46.7	47.1	46.9
<b>Nine Leading industries<sup>3</sup>.....</b>	<b>26.2</b>	<b>27.1</b>	<b>25.3</b>	<b>23.2</b>	<b>22.0</b>	<b>21.9</b>

<sup>1</sup> In 1939, the proportion of female employees in all manufacturing establishments reporting to the Annual Census of Industry was 22 p.c. <sup>2</sup> Consisting mainly of hotels, restaurants, laundries and dry-cleaning establishments. <sup>3</sup> These industries include also logging, mining and construction in which the number of female workers is very small.

### 4.—Man-Hours Worked and Average Hourly and Weekly Earnings in Leading Manufacturing Industries, 1946-48

Industry	Average Hours Worked			Average Hourly Earnings			Average Weekly Wages		
	1946	1947	1948	1946	1947	1948	1946	1947	1948
	No.	No.	No.	cts.	cts.	cts.	\$	\$	\$
Manufacturing.....	42.7	42.5	42.2	70.0	80.3	91.3	29.87	34.13	38.53
Durable manufactured goods.....	42.8	42.7	42.3	76.4	87.2	98.4	32.68	37.23	41.62
Non-durable manufactured goods.....	42.6	42.3	42.0	63.8	73.4	84.0	27.18	31.05	35.28

### 5.—Annual Index Numbers of Employment, Payrolls and Average Earnings of Leading Industrial Establishments, with Average Weekly Salaries and Wages of their Employees, 1947 and 1948.

Geographical and Industrial Unit	Index Numbers (June 1, 1941=100)						Average Weekly Salaries and Wages Reported	
	Employment		Aggregate Weekly Payrolls		Average Weekly Earnings		1947	1948
	1947	1948	1947	1948	1947	1948		
Province							\$	\$
Maritime Provinces.....	113.7	119.8	170.4	197.3	154.1	169.1	32.80	35.98
Prince Edward Island.....	134.4	149.5	181.5	220.9	136.8	149.7	29.42	32.20
Nova Scotia.....	103.4	112.0	149.1	178.9	149.0	164.9	32.49	35.95
New Brunswick.....	129.5	131.1	206.9	228.3	146.8	177.0	33.33	36.23
Quebec.....	122.2	126.2	176.7	202.7	147.8	164.1	34.64	38.45
Ontario.....	120.4	125.8	164.9	191.8	138.2	153.7	37.11	41.29
Prairie Provinces.....	127.4	133.0	175.6	203.8	139.2	154.6	36.46	40.50
Manitoba.....	123.7	128.4	169.0	194.5	136.6	151.2	36.23	40.10
Saskatchewan.....	123.3	125.9	169.3	190.7	140.8	155.1	35.67	39.20
Alberta.....	135.0	143.7	188.6	224.7	141.6	158.5	37.27	41.71
British Columbia.....	143.6	150.2	195.6	225.0	143.3	157.7	38.74	42.62
Totals.....	123.0	128.2	172.6	199.6	143.2	158.9	36.15	40.11

**5.—Annual Index Numbers of Employment, Payrolls and Average Earnings of Leading Industrial Establishments, with Average Weekly Salaries and Wages of their Employees, 1947 and 1948.—concluded**

Geographical and Industrial Unit	Index Numbers (June 1, 1941=100)						Average Weekly Salaries and Wages Reported	
	Employment		Aggregate Weekly Payrolls		Average Weekly Earnings		1947	1948
	1947	1948	1947	1948	1947	1948		
<b>City</b>							\$	\$
Montreal.....	126.5	130.0	172.3	196.3	141.8	157.2	34.92	38.71
Quebec.....	111.8	120.2	164.1	190.4	148.4	160.9	30.77	33.58
Toronto.....	124.3	129.7	170.6	197.8	138.8	154.3	36.76	40.88
Ottawa.....	120.4	127.3	165.6	190.1	137.2	149.3	31.69	34.48
Hamilton.....	113.7	120.5	154.7	186.5	135.8	154.5	37.32	42.46
Windsor.....	115.3	118.2	134.0	151.0	115.9	126.2	43.54	47.42
Winnipeg.....	127.3	131.4	166.0	189.4	131.7	145.7	33.18	36.74
Vancouver.....	156.2	163.9	213.9	248.0	141.6	156.8	36.32	40.22
Halifax.....	123.2	124.7	175.1	184.1	..	..	32.23	33.49
Saint John.....	132.1	132.1	191.2	206.3	..	..	31.34	33.47
Sherbrooke.....	112.4	117.0	162.1	185.0	..	..	29.96	32.88
Three Rivers.....	131.9	134.4	178.9	207.0	..	..	34.94	39.85
Kitchener-Waterloo.....	131.8	133.9	204.7	228.4	..	..	35.25	38.63
London.....	141.8	145.6	188.2	218.4	..	..	33.86	38.16
Port William-Port Arthur.....	80.0	85.6	117.7	138.9	..	..	39.09	43.07
Regina.....	124.0	130.5	172.1	196.2	..	..	32.00	35.57
Saskatoon.....	150.6	149.9	220.0	238.2	..	..	32.25	34.89
Calgary.....	129.3	136.0	176.8	206.6	..	..	34.48	38.52
Edmonton.....	144.4	161.6	195.8	246.1	..	..	32.97	37.58
Victoria.....	153.8	149.9	216.6	229.2	..	..	35.29	38.34
<b>Industry</b>								
Manufacturing.....	118.4	122.0	166.9	192.4	143.0	160.0	36.57	40.91
Durable goods <sup>1</sup> .....	114.6	118.2	159.0	182.8	141.1	157.4	39.07	42.57
Non-durable goods <sup>1</sup> .....	121.8	124.4	176.2	202.5	146.0	163.7	34.07	38.20
Electric light and power.....	127.3	147.9	165.8	212.7	128.6	141.4	41.50	45.43
Logging.....	195.3	181.7	347.0	355.6	188.1	207.7	35.42	39.11
Mining.....	89.2	98.0	120.6	149.8	138.9	157.5	43.03	48.77
Communications.....	169.0	182.0	213.5	249.4	127.1	139.0	34.42	37.66
Transportation.....	138.5	142.2	186.8	211.6	139.6	153.7	44.16	48.61
Construction and maintenance.....	110.0	121.3	167.5	202.8	154.5	169.7	34.86	38.31
Services <sup>2</sup> .....	139.4	146.1	200.9	229.0	146.9	161.9	23.48	25.87
Trade.....	132.1	141.2	175.0	204.4	138.0	151.6	31.29	34.38
<b>Eight Leading Industries.....</b>	<b>123.0</b>	<b>128.2</b>	<b>172.6</b>	<b>199.6</b>	<b>143.2</b>	<b>158.6</b>	<b>36.15</b>	<b>40.11</b>
Finance.....	132.9	139.5	170.5	186.4	129.7	135.7	37.09	38.80
<b>Nine Leading Industries.....</b>	<b>123.4</b>	<b>128.6</b>	<b>172.5</b>	<b>199.0</b>	<b>142.0</b>	<b>157.0</b>	<b>36.19</b>	<b>40.06</b>

<sup>1</sup> Includes the following industries: iron and steel, non-ferrous metals, electrical apparatus, lumber, musical instruments and clay, glass and stone products. The non-durable group includes the remaining manufacturing industries with the exception of electric light and power.

<sup>2</sup> Mainly hotels, restaurants, laundries and dry-cleaning establishments.

**Employment and Payrolls by Economic Areas.**—Industrial employment in 1948 reached new all-time high levels in Ontario and the Western Provinces. Some levelling in the rate of expansion was indicated in most areas, the increases in 1948 over the preceding year being lower than those indicated in a comparison between 1947 and 1946. In the Maritime Provinces taken as a unit, however, the increase of 5.4 p.c. in the annual index in 1948 was considerably greater than the gain of 0.6 p.c. in the preceding year, when the situation had been seriously affected by disputes in coal mining. The gains in Ontario, British Columbia and in the Prairie Provinces taken as a unit, were slightly above the annual average increase of 4.2 p.c. generally recorded in Canada. The improvement recorded in Quebec was slightly below the average, the most recent annual index increasing only by 3.2 p.c. over that for 1947.



The 1948 indexes of aggregate weekly payrolls followed the same general trend as those of employment in all provinces, although the advances were on a relatively greater scale. In all areas, the index numbers of payrolls were the highest on record.

Industrial activity improved considerably in the Maritime region; the index of employment, at 197·8 at Dec. 1, 1948, was only 1·9 points below the peak of 199·7 recorded at Dec. 1, 1943. The movement in all major industries except logging was favourable. The largest gain in the 1948 index over that for 1947 was in the mining industry, which had been adversely affected by disputes in the coal mines in the preceding year. A substantial gain was also noted in construction in 1948 as labour and building materials became more plentiful. The weekly earnings of persons in recorded employment in the Maritime Provinces increased from an average of \$32·80 in 1947 to \$35·98 in 1948, when the figure was at a maximum in the record of 7 years.

The general index of employment in Quebec was 198·5 in 1948 as compared with 192·3 in 1947. The annual all-time high figure was 200·0 in 1943. The maximum monthly index of 207·5 in 1948 was reached at Dec. 1; the figure was then slightly below the all-time high level of 208·3 at Dec. 1, 1943. The upward movement indicated in the Province as a whole extended to all major industries with the exception of logging, which showed a decline of 7·1 p.c. Employment in the textile and textile products industry, one of the largest employers of labour in the manufacturing group in this Province, increased by 4·9 p.c. The average weekly earnings of employees on the staffs of leading establishments in the eight leading industries in Quebec increased by 11 p.c. from \$34·64 in 1947 to \$38·45 in 1948, an advance which exceeded the general average.

The employment index for Ontario averaged 203·0 in 1948, a gain of 4·6 p.c. over the average for the preceding year. The index of 210·4 at Dec. 1, 1948, was the highest on record, which goes back to 1920. As in the Maritime Provinces and Quebec, there was expansion in all the major industrial groups except logging, in which the index of employment declined by 7·5 p.c. Shortages of gas and power during the winter months, and industrial disputes in the automobile parts industry in the summer and early autumn, hampered activity to some extent during 1948. The largest proportional increase in this Province over the preceding year was recorded in construction as shortages of materials and labour were overcome. The annual average of weekly earnings reported in Ontario was \$41·29 in 1948 as compared with \$37·11 for 1947.

Employment in the Prairie Provinces reached a new all-time high level at Dec. 1, 1948, when the index was 180·9. The average index for 1948, at 170·6, rose by 4·4 p.c. over the preceding year. Early in 1948, industrial disputes in the Alberta coal mines had a retarding effect on employment, but by the end of 1948 activity in all the major industrial groups with the exception of logging was at a higher level than at the same date in the earlier years. The greatest proportional gain in employment was recorded in construction, the annual index increasing by 10 p.c. over that for 1947. The per capita weekly earnings, as reported by the larger employers in the eight leading industries in the Prairie Provinces, increased from \$36·46 in 1947 to \$40·50 in 1948.

Although the situation in British Columbia was affected by disputes in coal mining in January and February, and later by the severe floods, the index of 216·2 at Sept. 1, 1948, was the highest on record. An increase over 1947 was noted in

all the major industrial groups except transportation, the largest taking place in trade. Employment in manufacturing rose by 2.8 p.c. in the year. The average weekly earnings in the eight leading industries in British Columbia stood at \$42.62 in 1948, compared with \$38.74 in the preceding year.

#### 6.—Index Numbers of Employment as Reported by Employers in Economic Areas, by Months, 1947 and 1948, with Yearly Averages, 1939-48

NOTE.—These indexes are calculated as at the first day of each month, on the base 1926=100. The relative weights show the proportion of employees reported in each economic area to the total reported by all employers making returns in Canada at Dec. 1, 1948. Averages for the years 1921-38 are given at pp. 613-614 of the 1947 Year Book.

Year and Month	Maritime Provinces	Quebec	Ontario	Prairie Provinces	British Columbia	Totals
<b>Averages, 1939</b> .....	<b>110.5</b>	<b>120.8</b>	<b>114.3</b>	<b>103.2</b>	<b>107.5</b>	<b>113.9</b>
<b>Averages, 1940</b> .....	<b>122.2</b>	<b>127.9</b>	<b>129.2</b>	<b>109.0</b>	<b>113.3</b>	<b>124.2</b>
<b>Averages, 1941</b> .....	<b>155.0</b>	<b>157.8</b>	<b>160.0</b>	<b>126.6</b>	<b>135.6</b>	<b>152.3</b>
<b>Averages, 1942</b> .....	<b>174.2</b>	<b>186.2</b>	<b>179.4</b>	<b>135.6</b>	<b>164.8</b>	<b>173.7</b>
<b>Averages, 1943</b> .....	<b>182.1</b>	<b>200.0</b>	<b>185.8</b>	<b>141.4</b>	<b>190.0</b>	<b>184.1</b>
<b>Averages, 1944</b> .....	<b>183.1</b>	<b>196.4</b>	<b>184.7</b>	<b>147.0</b>	<b>185.7</b>	<b>183.0</b>
<b>Averages, 1945</b> .....	<b>179.1</b>	<b>183.2</b>	<b>178.4</b>	<b>145.7</b>	<b>175.1</b>	<b>175.1</b>
<b>Averages, 1946</b> .....	<b>172.1</b>	<b>177.7</b>	<b>177.8</b>	<b>155.1</b>	<b>166.6</b>	<b>173.2</b>
<b>1947</b>						
January 1.....	169.4	186.7	186.7	158.3	180.4	181.0
February 1.....	168.0	186.2	187.6	154.6	180.8	180.7
March 1.....	148.9	188.4	188.7	155.4	180.9	180.4
April 1.....	153.3	185.8	189.9	155.3	183.6	180.7
May 1.....	151.7	182.2	189.4	155.7	186.2	179.6
June 1.....	165.8	186.9	191.8	161.9	192.4	184.5
July 1.....	179.4	191.2	195.7	167.3	196.9	189.5
August 1.....	183.9	195.0	196.7	172.1	204.2	192.6
September 1.....	184.7	196.1	196.4	172.1	207.5	193.2
October 1.....	188.2	199.3	199.6	166.8	206.0	194.8
November 1.....	193.3	203.7	202.2	170.1	203.1	197.8
December 1.....	192.3	205.6	205.0	171.7	202.6	199.6
<b>Averages, 1947</b> .....	<b>173.2</b>	<b>192.3</b>	<b>194.1</b>	<b>163.4</b>	<b>193.7</b>	<b>187.9</b>
<b>1948</b>						
January 1.....	181.9	196.8	202.7	166.2	194.0	193.7
February 1.....	179.9	193.6	198.6	156.4	190.3	189.3
March 1.....	171.0	193.4	199.3	158.4	188.1	188.9
April 1.....	166.1	187.3	197.7	159.6	190.8	186.6
May 1.....	167.9	186.3	196.7	159.6	196.1	186.5
June 1.....	172.5	194.4	200.0	168.9	202.0	192.3
July 1.....	186.7	198.6	204.8	175.9	207.8	198.0
August 1.....	190.0	206.3	203.3	179.5	212.6	200.9
September 1.....	189.1	205.1	205.4	180.6	216.2	201.8
October 1.....	192.8	205.8	208.3	180.8	214.8	203.3
November 1.....	194.9	207.1	208.6	180.3	212.2	203.6
December 1.....	197.8	207.5	210.4	180.9	206.1	204.3
<b>Averages, 1948</b> .....	<b>182.6</b>	<b>198.5</b>	<b>203.0</b>	<b>170.6</b>	<b>202.6</b>	<b>195.8</b>
Percentage distribution of employees reported in economic areas as at Dec. 1, 1948.....	7.3	29.7	41.8	11.8	9.4	100.0

**Employment and Payrolls by Cities.**—During 1948, as in 1947, the co-operating firms in the eight larger industrial centres employed over 43 p.c. of the total personnel of the reporting establishments throughout Canada. The proportion of the indicated payroll disbursements, however, declined fractionally in 1948. The composite index number of employment for the eight leading cities increased by 4 p.c. in 1948 compared with a gain of 4.2 p.c. in Canada as a whole

and 4.3 p.c. in the smaller cities and rural areas. Improvement was noted in all the major industrial groups in the eight larger cities taken as a unit. The changes in the indexes shown in Table 7 as compared with the preceding year were practically the same as those indicated for Canada as a whole in manufacturing, trade and the services industries for which statistics are available. The indexes for Canada showed greater expansion in communications and construction. The increase in the year in manufacturing (which is particularly heavily represented in the larger centres) amounted to 2.9 p.c. in the leading cities and to 3 p.c. in Canada as a whole.

As will be seen from Table 7, there was heightened industrial activity in all cities for which data are segregated, although the advances in the index numbers varied largely as a result of the industrial distribution of the reported employees. The largest percentage gains were in Quebec, Hamilton and Ottawa.

During 1948, the index of weekly payrolls in the larger centres taken as a unit averaged 15.3 p.c. higher than in the preceding year, as compared with the advance of 15.6 p.c. recorded in the general index number of payrolls in the same period. In 1947 the increases over 1946 had amounted to 19.8 p.c. in the cities and to 21.2 p.c. in the figure for Canada.

The index number of weekly salaries and wages in each of the leading cities rose by more than 12.5 p.c. in 1948 over the preceding 12 months. The largest percentage gains were noted in Hamilton, Quebec, Toronto and Vancouver, where the indexes rose by 20.6 p.c., 16 p.c., 15.9 p.c. and 15.9 p.c., respectively.

Statistics of average weekly wages of hourly-rated wage-earners in leading manufacturing establishments are published monthly for several of the larger industrial centres. In Hamilton and Toronto the average weekly wage increased by \$5.67 and \$4.59, respectively, in 1948 to reach new high levels of \$42.08 and \$38.49. The unusually high average weekly wages in Hamilton were mainly due to the industrial distribution of employees for whom statistics are available. The weekly wages indicated by the reporting factories in Vancouver averaged \$40.13, those in Winnipeg, \$37.09, and in Montreal, \$36.58. The average for Canada in 1948 was \$38.53, compared with \$34.13 in the preceding year.

#### 7.—Index Numbers of Employment as Reported by Leading Employers in certain Cities, by Months, 1947 and 1948, with Yearly Averages 1929 and 1939-48

NOTE.—These indexes are calculated as at the first day of each month on the base 1926=100. The relative weights show the proportion of employees reported in each city to the total reported by all employers making returns in Canada at Dec. 1, 1948. Averages for 1921-28, inclusive, are given at p. 772 of the 1938 Year Book and for 1930-38 at p. 615 of the 1947 edition.

Year	Montreal	Quebec	Toronto	Ottawa	Hamilton	Windsor	Winnipeg	Vancouver
Averages, 1929 . . .	115.3	124.2	121.3	120.7	128.4	153.2	112.3	109.2
Averages, 1939 . . .	106.6	119.6	109.9	108.4	103.7	133.4	93.9	111.4
Averages, 1940 . . .	114.7	126.4	123.1	119.2	124.4	161.2	101.0	120.2
Averages, 1941 . . .	142.7	167.8	152.9	149.2	159.5	227.3	122.8	146.8
Averages, 1942 . . .	167.4	223.2	180.2	161.9	186.6	282.5	132.4	205.0
Averages, 1943 . . .	186.7	271.9	195.2	168.0	186.7	305.6	139.2	245.8
Averages, 1944 . . .	187.8	268.4	197.7	166.7	180.8	291.0	145.2	242.6
Averages, 1945 . . .	172.5	217.3	184.3	162.6	176.4	242.3	142.6	221.7
Averages, 1946 . . .	168.0	167.5	177.4	173.7	165.0	237.3	149.7	196.3



**7.—Index Numbers of Employment as Reported by Leading Employers in certain Cities, by Months, 1947 and 1948, with Yearly Averages 1929 and 1939-48—concluded**

Year and Month	Montreal	Quebec	Toronto	Ottawa	Hamilton	Windsor	Winnipeg	Vancouver
<b>1947</b>								
January 1.....	174.1	169.5	185.5	184.4	174.9	238.4	154.2	212.9
February 1.....	173.9	164.9	185.1	177.6	177.7	243.6	151.0	213.6
March 1.....	174.8	166.3	187.2	175.7	177.8	250.0	151.8	214.7
April 1.....	175.0	167.9	188.3	178.2	181.2	252.6	151.9	216.0
May 1.....	176.8	170.6	188.5	177.5	182.5	263.7	152.2	217.3
June 1.....	178.9	178.9	189.0	180.4	185.3	272.5	153.2	222.4
July 1.....	179.7	186.8	192.6	183.9	188.4	273.7	155.9	224.9
August 1.....	179.3	195.6	190.8	184.0	187.2	276.5	157.4	230.5
September 1.....	179.9	199.6	191.0	183.8	185.1	276.2	157.4	229.5
October 1.....	181.5	199.8	191.2	182.6	187.8	279.7	153.9	225.2
November 1.....	182.9	198.8	196.5	182.9	189.7	278.7	162.2	220.4
December 1.....	185.8	199.7	200.2	185.5	191.8	273.9	165.9	232.3
<b>Averages, 1947....</b>	<b>178.6</b>	<b>183.2</b>	<b>190.5</b>	<b>181.4</b>	<b>184.1</b>	<b>265.0</b>	<b>155.6</b>	<b>221.6</b>
<b>1948</b>								
January 1.....	180.3	190.2	198.9	185.4	189.3	267.4	159.3	226.5
February 1.....	178.7	188.2	196.6	183.1	189.0	206.7	154.6	226.1
March 1.....	179.1	191.4	196.3	181.2	188.9	268.1	152.6	225.5
April 1.....	178.3	190.7	196.2	184.1	190.4	267.8	154.2	225.5
May 1.....	180.6	192.9	196.5	183.5	192.4	263.1	154.4	227.5
June 1.....	181.9	197.9	196.6	191.2	195.3	267.9	158.3	232.0
July 1.....	183.1	200.3	199.2	197.2	199.6	281.1	162.0	235.8
August 1.....	182.6	202.1	196.6	197.0	197.6	284.0	162.8	236.8
September 1.....	185.9	204.3	198.8	197.9	198.2	284.0	163.6	240.4
October 1.....	188.5	203.8	200.2	196.4	198.4	292.0	164.9	238.5
November 1.....	190.2	201.9	203.4	201.1	200.5	288.4	168.3	239.7
December 1.....	192.6	200.7	206.4	202.9	202.8	288.9	171.4	236.5
<b>Averages, 1948....</b>	<b>183.5</b>	<b>197.0</b>	<b>198.8</b>	<b>191.8</b>	<b>195.2</b>	<b>271.7</b>	<b>160.5</b>	<b>232.6</b>
Percentage distribution of employees reported in the leading cities at Dec. 1, 1948, to Canada totals as 100.....	14.5	1.5	13.2	1.3	3.2	1.9	3.4	4.2

**Employment and Payrolls by Industries.**—Increases in employment in 1948 as compared with the preceding year were reported in all the major industrial groups with the exception of logging. The highest percentage gain was that of 10.3 p.c. recorded in construction. The smallest advance in employment, amounting only to 2.6 p.c., was reported by transportation firms.

The 1948 annual index of employment in manufacturing generally as shown in Table 8 increased by 3 p.c. as compared with the annual index for 1947, which in turn had risen by 6.8 p.c. as compared with 1946 when the situation had been greatly affected by reconversion problems and by serious industrial disputes. Proportionally, the increase in 1948 as compared with the preceding year, was slightly greater in the heavy goods industries, namely, the manufacturing of iron and steel, non-ferrous metals, electrical apparatus, lumber, musical instruments and clay, glass and stone products. The index in these industries taken as a unit advanced by 3.1 p.c. in the year, as compared with 2.1 p.c. in the remaining branches of manufacturing. Expansion was noted in all the main industries in the heavy goods group. Employment in the important iron and steel products industry increased by 2.7 p.c. in 1948. The index for agricultural implements rose by 17.8 p.c. with continued heavy demand for these products. In the non-durable manufacturing group some declines were recorded, namely, in leather, edible plant, rubber and tobacco products.

Expansion was noted in the remaining industries within this category. The employment index for textiles and textile products, an especially important employer of labour, mounted by 4.6 p.c.

The index of payrolls in manufacturing increased by 15.3 p.c. in 1948, when the durable goods industries showed a gain of 15 p.c. over 1947, and the non-durable, 14.9 p.c. The salaried employees and wage-earners on the payrolls of the co-operating factories earned an average of \$40.91 per week in 1948 compared with \$36.57 in 1947, \$32.65 in 1945, the last year of the War, and \$31.50 in 1943, when wartime activity in manufacturing had reached its peak. In comparing the average earnings in the various industries, as shown in Table 5, the sex, age and industrial distributions of the workers must be kept in mind.

There was some falling-off in employment in logging during 1948, the annual index, at 287.6, being lower than the 1947 figure of 309.1, but above the 1946 average of 268.5, the highest index up to that time. With the heavy demand for lumber for use in construction and in pulp and paper mills at home and abroad, employment has been relatively well maintained in recent years. The industry, which is unusually dependent upon weather conditions, was hampered by the low levels of water in certain areas in the autumn of 1948. The payroll index in logging increased by 2.5 p.c., over 1947, to reach a new all-time high. The average weekly earnings of the employees reported in 1948 were \$39.11 per week, almost \$4.00 above the 1947 average, and \$10.00 above the 1946 weekly figure.

The employment index for mining, after sagging for some years, stood at 173.6 in 1948, only three points below its 1941 maximum. Industrial disputes in western coal fields affected the situation to some extent in 1948, but were of less importance than in 1947. The index for metallic ores increased by 8.6 p.c., and for non-metallic minerals (excluding coal) by 12 p.c. The payroll index for mining as a whole rose by 24.2 p.c. in 1948. The average weekly earnings were \$48.77, being \$5.74 higher than in 1947.

Since 1939 employment in communications has risen steadily, the latest index, at 177.0, showing an increase of 7.7 p.c. over 1947. The greatest percentage gain was made in the telephone section. The weekly earnings in communications, in which the proportion of women workers is very high, averaged \$37.66 in 1948, as compared with \$34.42 in the preceding year. As in communications, employment in the transportation industry has steadily increased for some time. The annual index of employment for 1948 was 140.5, compared with 136.9 in 1947. The increase extended to all major sub-groups; the largest gain of 8.0 p.c. was in shipping and stevedoring. The annual index of payrolls in the transportation industries increased by 13.3 p.c. in 1948, while the per capita weekly earnings rose from \$44.16 in 1947 to \$48.61 in 1948.

Employment in construction and maintenance reached a maximum during 1948. In most areas, shortages of materials and labour were overcome; despite high prices, post-war building continued extremely active. The annual employment index for 1948 was 168.6, compared with 152.9 in 1947, while the payroll index in construction increased by 21.1 p.c. in the year. The average weekly earnings of persons on the payrolls of leading establishments in the construction industry as a whole were \$38.31 in 1948, as compared with \$34.86 in 1947. Employment in building construction showed a gain of 11.5 p.c. in the year, compared with advances of 10.8 p.c. in highway construction and 4.8 p.c. in railway construction. The payroll index for building construction increased by 23.5 p.c., and the average weekly earnings by \$4.00, to reach \$41.41 per week in 1948.

The employment index for the service industries for which monthly data are available (chiefly hotels, restaurants, laundries and dry-cleaning establishments) was 4.8 p.c. above the 1947 index. The average weekly earnings increased from \$23.48 in that year to \$25.87 in 1948. In considering these figures with those of other industries, it should be recalled that large proportions of women are employed in the above-named groups and part-time work is also frequent. The annual index of employment in trade increased from 207.1 in 1947 to 221.4 in 1948. There was a slightly larger percentage gain in the retail group. The per capita weekly earnings of persons reported in the latter industry, which also employs large numbers of women, young persons and part-time workers, rose from \$28.99 in 1947 to \$32.03 in 1948; in wholesale trade, the increase was from \$37.14 in 1947 to \$40.26 in 1948.

#### 8.—Index Numbers of Employment, by Industrial Groups and by Months, 1947 and 1948, with Yearly Averages, 1929 and 1939-48

NOTE.—These indexes are calculated as at the first day of each month, on the base 1926=100. The relative weights show the proportion of employees reported in each industry to the total reported by all employers making returns in Canada at Dec. 1, 1948. Averages for 1921-28, inclusive, are given at p. 773 of the 1933 Year Book and for 1930-38 at p. 617 of the 1947 edition.

Year	Manu- factur- ing	Logging	Mining	Com- muni- cations	Trans- porta- tion	Con- struc- tion and Main- tenance	Services <sup>1</sup>	Trade	Eight Leading Indus- tries
<b>Averages, 1929...</b>	<b>117.1</b>	<b>125.8</b>	<b>120.1</b>	<b>120.6</b>	<b>109.7</b>	<b>129.7</b>	<b>130.3</b>	<b>126.2</b>	<b>119.0</b>
<b>Averages, 1939...</b>	<b>112.3</b>	<b>119.1</b>	<b>163.8</b>	<b>84.4</b>	<b>85.6</b>	<b>113.0</b>	<b>137.4</b>	<b>136.6</b>	<b>113.9</b>
<b>Averages, 1940...</b>	<b>131.3</b>	<b>166.9</b>	<b>168.4</b>	<b>87.2</b>	<b>89.7</b>	<b>90.7</b>	<b>143.2</b>	<b>142.9</b>	<b>124.2</b>
<b>Averages, 1941...</b>	<b>168.4</b>	<b>187.8</b>	<b>176.6</b>	<b>96.7</b>	<b>98.9</b>	<b>126.6</b>	<b>167.5</b>	<b>156.5</b>	<b>152.3</b>
<b>Averages, 1942...</b>	<b>206.5</b>	<b>196.5</b>	<b>121.3</b>	<b>163.7</b>	<b>105.5</b>	<b>130.3</b>	<b>178.8</b>	<b>156.1</b>	<b>173.7</b>
<b>Averages, 1943...</b>	<b>226.2</b>	<b>180.4</b>	<b>158.5</b>	<b>104.5</b>	<b>114.4</b>	<b>129.8</b>	<b>189.8</b>	<b>155.1</b>	<b>184.1</b>
<b>Averages, 1944...</b>	<b>224.5</b>	<b>215.8</b>	<b>154.5</b>	<b>108.6</b>	<b>121.2</b>	<b>104.6</b>	<b>202.2</b>	<b>164.2</b>	<b>183.0</b>
<b>Averages, 1945...</b>	<b>203.6</b>	<b>247.3</b>	<b>146.9</b>	<b>117.6</b>	<b>124.5</b>	<b>109.1</b>	<b>205.7</b>	<b>174.8</b>	<b>175.1</b>
<b>Averages, 1946...</b>	<b>186.3</b>	<b>268.5</b>	<b>155.2</b>	<b>141.9</b>	<b>128.4</b>	<b>129.6</b>	<b>224.2</b>	<b>191.2</b>	<b>173.2</b>
<b>1947</b>									
January 1.....	190.6	370.5	154.0	154.9	132.0	125.1	223.7	212.3	181.0
February 1.....	193.9	375.6	162.1	155.1	129.3	121.2	224.8	196.4	180.7
March 1.....	194.5	377.9	135.9	156.6	129.9	123.8	226.4	197.4	180.4
April 1.....	195.2	331.0	138.7	159.0	131.1	128.6	228.5	200.2	180.7
May 1.....	195.8	241.3	139.5	161.4	134.7	133.2	231.9	200.7	179.6
June 1.....	197.6	239.8	157.6	165.7	139.9	149.6	238.4	201.6	184.5
July 1.....	200.6	241.5	167.5	169.9	141.2	165.0	250.5	205.9	189.5
August 1.....	202.5	246.0	170.2	173.5	142.7	176.2	260.2	206.0	192.6
September 1.....	203.3	242.2	167.1	171.6	141.8	179.9	258.7	207.2	193.2
October 1.....	203.6	286.1	165.2	169.4	141.7	180.4	251.0	211.7	194.8
November 1.....	205.1	352.3	168.0	168.0	138.2	181.3	245.0	216.7	197.8
December 1.....	205.1	405.2	171.0	166.4	140.0	170.5	241.8	228.3	199.6
<b>Averages, 1947...</b>	<b>199.0</b>	<b>309.1</b>	<b>158.1</b>	<b>164.3</b>	<b>136.9</b>	<b>152.9</b>	<b>240.1</b>	<b>207.1</b>	<b>187.9</b>
<b>1948</b>									
January 1.....	199.9	414.3	167.1	168.0	139.3	142.5	240.4	230.8	193.7
February 1.....	200.7	393.8	153.4	168.0	132.8	137.6	239.2	212.7	189.3
March 1.....	202.6	371.3	164.9	168.1	132.8	129.0	236.8	212.0	188.9
April 1.....	202.0	273.3	168.8	170.5	132.5	130.8	237.9	215.3	186.6
May 1.....	201.8	168.6	172.3	172.0	138.3	147.0	245.0	214.4	186.5
June 1.....	203.6	218.4	174.8	175.6	141.6	166.6	250.2	216.6	192.3
July 1.....	207.2	226.6	178.7	181.3	142.8	185.5	264.1	220.0	198.0
August 1.....	206.5	224.0	179.7	184.8	144.9	207.8	268.7	219.4	200.9
September 1.....	209.5	220.3	181.5	185.5	145.5	201.5	268.4	220.5	201.8
October 1.....	210.0	267.7	179.6	184.3	146.6	197.3	263.7	224.8	203.3
November 1.....	208.3	321.6	181.5	182.7	144.6	192.7	253.9	230.5	203.6
December 1.....	207.9	351.0	181.1	182.6	144.5	184.6	251.0	239.5	204.3
<b>Averages, 1948...</b>	<b>205.0</b>	<b>287.6</b>	<b>173.6</b>	<b>177.0</b>	<b>140.5</b>	<b>168.6</b>	<b>251.6</b>	<b>221.4</b>	<b>195.8</b>
Percentage distri- bution of em- ployees reported in the leading industries as at Dec. 1, 1948....	51.1	5.0	4.0	2.3	8.8	11.5	3.3	14.0	100.0

<sup>1</sup> Consists mainly of hotels and restaurants, laundries and dry-cleaning establishments.



#### Subsection 4.—Earnings and Hours of Work of Male and Female Wage-Earners and Salaried Employees in Manufacturing\*

Annual surveys of hours and earnings of male and female salaried employees and wage-earners in manufacturing establishments which usually employ 15 or more persons were instituted in 1946, superseding somewhat similar surveys conducted by the Census of Manufactures from 1932 to 1945.† The two series are not entirely comparable; the earlier survey collected data from manufacturing establishments, regardless of size, for one week in the month of highest employment in each establishment, while the later series relates to one week in the autumn of each year and is limited to the larger establishments. Differences in industrial coverage and in material collected and tabulated also reduce the comparability of the two series. The more recent survey covers more than 86 p.c. of the employees in all manufacturing establishments in Canada.

The data published in Tables 10-12 relate to all salaried employees and wage-earners in the employ of larger manufacturers, except travelling salesmen, homeworkers, watchmen, charwomen and workers engaged on new construction. Proprietors and firm members were also excluded, as were employees engaged in the distribution of products where the sales offices were organized as separate units. Gross earnings were reported, including regular salaries and wages paid on a time or piece-work basis, regularly-paid commissions, incentive or production bonuses, overtime earnings, etc.

Tables 9 and 10 show the average hours worked and the average earnings of wage-earners and salaried employees of both sexes reported for the last week of November, 1946 and 1947, in Canada, in the eight larger provinces, and in the principal manufacturing industries. Significant increases in earnings occurred over the year, resulting, in the main, from upward wage adjustments and, in some cases, from increased cost-of-living bonuses. Other factors influencing the pay levels include the type and size of the manufacturing operation, the proportions of women employed, occupational variations, seasonal influences in many industries, the proportions of short-time, part-time and casual workers, the amounts of overtime work done, and the extent of labour turnover and absenteeism in the week reviewed. There are also variations related to the location of the establishment in areas where general pay levels tend to be above or below average. Provincial variations are closely related to the industrial distributions of the workers in the different provinces. Differences in type and size of the industrial units also affect salary levels, as well as varying requirements for highly-paid executive and professional personnel, the number of head offices and the organization of distributive operations.

Table 11 indicates the percentages women constituted of the wage-earners and salaried personnel in Canada and eight provinces, together with the proportions that women's earnings formed of men's earnings in November, 1946 and 1947. In making comparisons of the figures for each sex, it should be borne in mind that women are more numerous in the industries in which pay levels are below average, that their hours of work are frequently shorter, that part-time work and absenteeism are more common among women, and that they tend, on the average, to be younger and less experienced workers.

\* Prepared in the Employment Section, Labour and Prices Division, Dominion Bureau of Statistics.

† Figures derived from these surveys appeared at pp. 567-574 of the 1948-49 Year Book.

The percentage distribution of wage-earners of each sex in five main groups of hours worked is shown in Table 12. Provincial variations are related to the industrial distribution of the workers, to variations in the standard working week, and to seasonal and other differences in amounts of part-time, short-time and overtime work. It will be noted that almost a third of the women averaged less than 40 hours. There were no significant differences in hours of work of wage-earners in 1946 and 1947.

More complete information on hours and earnings of wage-earners and salaried personnel in the principal manufacturing industries in Canada, the provinces, and the 22 large industrial cities is provided in the Dominion Bureau of Statistics' publication, "Earnings and Hours of Work in Manufacturing".

**9. — Average Hours Worked, Average Hourly and Average Weekly Earnings of Male and Female Wage-Earners for the Last Week of November, 1946 and 1947**

(As reported by leading manufacturers)

Province or Industry	Average Hours Worked			Average Hourly Earnings			Average Weekly Earnings		
	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes
	No.	No.	No.	cts.	cts.	cts.	\$	\$	\$
<b>Province—</b>									
Nova Scotia.....1946	46.0	43.6	45.7	73.7	39.4	68.8	33.90	17.18	31.44
1947	46.2	43.4	45.8	81.1	40.6	75.5	37.47	17.62	34.58
New Brunswick.....1946	46.7	42.9	46.0	71.9	40.0	66.4	33.58	17.16	30.54
1947	46.6	40.3	45.4	79.5	47.7	73.9	37.05	19.22	33.55
Quebec.....1946	47.1	41.2	45.4	74.2	47.3	67.2	34.95	19.49	30.51
1947	47.1	40.7	45.4	84.2	54.1	76.7	39.66	22.02	34.82
Ontario.....1946	44.0	38.8	42.8	84.3	52.9	77.7	37.09	20.53	33.26
1947	44.2	38.8	43.0	96.6	62.2	89.7	42.70	24.13	38.57
Manitoba.....1946	43.8	39.6	42.8	78.8	49.8	72.8	34.51	19.72	31.16
1947	44.5	39.7	43.4	88.1	57.0	82.0	39.20	22.63	35.59
Saskatchewan.....1946	44.3	41.2	44.0	77.0	54.5	74.5	34.11	22.45	32.78
1947	43.8	40.3	43.3	87.5	62.3	84.5	39.16	25.10	36.63
Alberta.....1946	43.5	41.6	43.2	79.3	51.4	75.0	34.50	21.38	32.40
1947	44.1	41.8	43.7	88.6	60.4	84.2	39.07	25.25	36.81
British Columbia.....1946	41.5	39.2	41.2	94.0	58.8	89.4	39.01	23.05	36.83
1947	40.4	38.4	40.4	107.8	68.2	103.6	43.55	26.19	41.85
<b>Totals.....1946</b>	<b>44.9</b>	<b>40.0</b>	<b>43.7</b>	<b>80.7</b>	<b>50.2</b>	<b>74.1</b>	<b>36.23</b>	<b>20.05</b>	<b>32.38</b>
<b>1947</b>	<b>44.9</b>	<b>39.7</b>	<b>43.7</b>	<b>92.1</b>	<b>58.2</b>	<b>85.1</b>	<b>41.35</b>	<b>23.11</b>	<b>37.19</b>
<b>Industry—</b>									
Meat products.....1946	42.9	39.6	42.3	81.8	59.0	77.9	35.09	23.36	32.95
1947	45.3	40.9	44.5	94.3	71.5	90.7	42.72	29.24	40.36
Leather boots and shoes.....1946	43.5	41.2	42.5	67.1	44.2	57.3	29.19	18.21	24.35
1947	40.9	39.4	40.3	77.7	51.0	66.1	31.78	20.09	26.64
Rough and dressed lumber.....1946	45.5	43.0	45.4	72.9	59.1	72.3	33.17	25.41	32.82
1947	43.8	40.4	43.7	85.3	69.1	84.7	37.36	27.92	37.01
Furniture.....1946	45.3	40.5	44.9	66.3	51.3	65.3	30.03	20.78	29.32
1947	44.7	40.0	44.3	76.9	61.5	75.8	34.37	24.60	33.58
Fruit and vegetable canning.....1946	46.0	40.0	43.2	61.2	47.6	55.3	28.19	19.04	23.89
1947	45.0	37.2	41.3	70.9	53.1	63.1	31.91	19.75	26.06
Bread and bakery products.....1946	46.5	39.1	43.9	67.6	41.8	59.5	31.43	16.34	26.12
1947	46.7	38.8	44.2	80.6	49.4	72.1	37.64	19.17	31.87
Pulp and paper mills.....1946	48.7	45.0	48.6	88.0	53.1	85.0	41.88	23.90	41.31
1947	48.8	45.4	48.7	101.9	62.0	101.0	49.73	28.15	49.19
Paper products.....1946	46.3	40.3	43.8	73.0	44.9	62.2	33.80	18.09	27.24
1947	45.7	40.3	43.8	85.0	52.7	73.5	38.85	21.50	32.19
Printing and publishing.....1946	43.3	38.5	42.0	93.6	48.6	82.3	40.53	18.71	34.57
1947	42.2	38.1	41.1	106.1	55.5	93.6	44.77	21.15	38.47
Rubber products.....1946	45.6	42.3	44.8	90.1	50.7	82.1	41.09	23.98	36.78
1947	44.3	41.8	43.7	100.3	65.0	91.7	44.43	27.17	40.07
Cotton yarn and cloth.....1946	47.2	42.3	45.2	60.5	48.1	55.7	28.56	20.35	25.18
1947	44.9	40.9	43.3	74.1	60.5	68.9	33.27	24.74	29.83
Woollen yarn and cloth.....1946	47.6	40.6	44.5	63.5	47.9	57.2	30.23	19.45	25.45
1947	47.7	41.5	44.9	73.6	55.8	66.2	35.11	23.16	29.72
Silk and artificial silk goods.....1946	48.7	45.1	47.4	61.9	45.1	56.2	30.15	20.34	26.64
1947	48.2	44.6	46.9	73.3	53.5	66.6	35.33	23.86	31.24

9. — Average Hours Worked, Average Hourly and Average Weekly Earnings of Male and Female Wage-Earners for the Last Week of November, 1946 and 1947—concluded

Industry	Average Hours Worked			Average Hourly Earnings			Average Weekly Earnings		
	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes
	No.	No.	No.	cts.	cts.	cts.	\$	\$	\$
<b>Industry—concluded</b>									
Hosiery and knit goods.....1946	46.1	40.8	42.6	68.9	45.2	54.0	31.76	18.44	23.00
1947	46.3	41.0	42.8	78.0	51.7	61.3	36.11	21.20	26.24
Men's clothing.....1946	41.2	38.4	39.9	86.5	50.7	60.9	35.64	19.98	24.30
1947	41.2	38.8	39.5	95.8	57.3	68.5	39.47	22.23	27.06
Women's clothing.....1946	38.2	35.3	39.5	107.4	60.4	70.4	41.03	21.32	25.27
1947	38.1	35.1	35.7	116.5	63.2	74.7	44.39	22.18	26.67
Tobacco.....1946	45.6	41.4	42.9	65.9	49.2	55.6	30.05	20.37	23.85
1947	44.8	40.6	42.1	77.3	57.7	65.0	34.63	23.43	27.37
Distilled and malt liquors.....1946	43.8	40.7	43.4	80.2	52.6	76.8	35.11	21.37	33.32
1947	44.2	41.1	43.8	92.0	64.6	88.7	40.66	26.55	38.85
Chemicals and allied products.....1946	45.3	41.0	44.4	79.4	47.2	73.1	35.97	19.35	32.46
1947	44.7	40.2	43.8	91.5	54.7	84.8	40.90	21.99	37.14
Clay, glass and stone products.....1946	46.5	42.2	46.0	73.8	51.9	71.6	34.32	21.90	32.94
1947	46.7	43.7	46.4	86.5	63.9	84.4	40.40	27.92	39.16
Electrical apparatus.....1946	42.7	40.3	41.9	85.1	60.5	77.3	36.34	24.38	32.39
1947	43.5	40.7	42.6	99.5	73.8	91.8	43.28	30.04	39.11
Iron castings.....1946	45.7	43.1	45.6	85.3	55.3	84.4	38.98	23.84	38.47
1947	45.5	42.4	45.4	96.5	69.6	96.0	43.91	29.51	43.58
Primary iron and steel.....1946	44.4	39.6	45.3	92.1	67.6	91.9	41.81	26.77	41.63
1947	46.4	40.8	46.3	100.5	72.1	100.3	46.63	29.42	46.44
Machinery (other than vehicles).....1946	45.6	40.8	45.3	79.5	49.7	78.1	36.25	20.28	35.38
1947	46.0	42.4	45.9	91.7	63.6	90.3	42.18	26.97	41.45
Agricultural implements.....1946	43.8	42.0	43.8	88.6	64.1	88.1	38.83	26.96	38.60
1947	44.8	..	44.8	99.2	..	98.9	44.44	..	44.31
Railway rolling stock.....1946	42.4	..	42.4	94.7	..	94.6	40.15	..	40.11
1947	43.4	..	43.4	96.4	..	96.3	41.84	..	41.79
Automobile manufacturing.....1946	39.9	41.6	39.9	109.8	72.3	109.3	43.81	30.08	43.61
1947	42.1	45.0	42.1	121.9	88.1	121.5	51.32	39.65	51.15
Automobile parts.....1946	42.7	40.1	42.4	89.0	60.1	85.4	38.03	24.04	36.21
1947	43.5	40.3	43.0	102.1	75.0	98.1	44.41	30.23	42.18
Aeroplanes and parts.....1946	45.0	42.2	44.8	89.3	62.4	88.0	40.21	26.35	39.47
1947	44.2	43.2	44.2	92.9	65.5	91.9	41.06	28.30	40.62
Steel shipbuilding and repairing.....1946	43.3	39.0	43.2	91.4	63.7	90.7	39.56	24.88	39.17
1947	45.7	..	45.7	99.6	..	99.4	45.52	..	45.43
Structural iron and steel fabrication.....1946	44.3	..	44.2	87.4	..	87.2	38.72	..	38.54
1947	44.6	..	44.5	96.0	..	95.9	42.82	..	42.68
Foundry and machine shop products.....1946	45.0	..	44.9	84.1	..	83.4	37.85	..	37.47
1947	45.0	..	44.9	96.0	..	95.6	43.20	..	42.92
Sheet metal work.....1946	43.2	40.9	42.8	78.8	54.0	74.5	34.04	22.10	31.86
1947	42.9	40.2	42.5	90.4	65.1	86.5	38.82	26.16	36.74
Smelting and refining non-ferrous metallic ores.....1946	44.0	..	44.0	89.6	..	89.5	39.42	..	39.38
1947	44.1	..	44.1	102.5	..	102.4	45.20	..	45.16
Aluminum and its products.....1946	45.4	41.9	45.2	82.8	53.2	80.7	37.59	22.29	36.48
1947	46.2	40.8	45.8	93.7	63.7	92.1	43.29	25.99	42.18
Brass and copper.....1946	44.4	40.0	43.7	84.1	50.4	79.0	37.34	20.16	34.52
1947	43.8	40.4	43.3	93.5	62.0	89.9	40.95	25.05	38.93
Petroleum and its products.....1946	40.9	..	40.9	94.0	..	93.9	38.45	..	38.41
1947	41.5	..	41.5	107.8	..	107.7	44.74	..	44.70
Miscellaneous manufacturing products.....1946	43.9	41.0	42.9	70.4	47.4	62.8	30.91	19.43	26.94
1947	43.7	39.7	42.3	81.8	57.1	73.7	35.75	22.67	31.18
Durable manufactured goods.....1946	44.2	41.0	43.9	84.1	55.5	81.6	37.17	22.76	35.82
1947	44.5	41.0	44.2	94.8	67.7	92.6	42.19	27.76	40.93
Non-durable manufactured goods.....1946	45.7	39.8	43.5	76.8	48.9	67.5	35.05	19.46	29.36
1947	45.4	39.5	43.3	88.8	58.1	78.3	40.32	22.16	33.90
<b>Averages, Leading Manufacturing Industries.....1946</b>	<b>44.9</b>	<b>40.0</b>	<b>43.7</b>	<b>80.7</b>	<b>50.2</b>	<b>74.1</b>	<b>36.23</b>	<b>20.08</b>	<b>32.38</b>
<b>1947</b>	<b>44.9</b>	<b>39.7</b>	<b>43.7</b>	<b>92.1</b>	<b>58.2</b>	<b>85.1</b>	<b>41.35</b>	<b>23.11</b>	<b>37.19</b>



# 10.—Average Hours Worked and Average Weekly Earnings of Male and Female Salaried Employees for the Last Week of November, 1946 and 1947

(As reported by leading manufacturers)

Province or Industry	Average Hours Worked			Average Weekly Earnings		
	Male	Female	Both Sexes	Male	Female	Both Sexes
Province	No.	No.	No.	\$	\$	\$
Nova Scotia.....1946	44.1	40.7	43.1	46.86	23.54	39.89
.....1947	42.6	40.0	41.9	53.44	25.67	45.34
New Brunswick.....1946	44.3	40.9	43.2	48.25	22.68	40.33
.....1947	44.6	41.2	43.6	53.56	24.78	44.59
Quebec.....1946	42.5	39.6	41.5	53.30	26.53	44.57
.....1947	41.3	39.1	40.6	59.09	28.95	49.45
Ontario.....1946	41.3	39.2	40.5	54.19	25.87	43.82
.....1947	40.8	38.6	40.0	62.01	28.84	50.46
Manitoba.....1946	43.3	41.1	42.7	48.93	23.76	41.46
.....1947	42.2	40.4	41.7	54.62	26.07	46.07
Saskatchewan.....1946	43.7	41.3	42.9	46.10	24.20	38.78
.....1947	43.0	41.0	42.1	50.47	25.90	41.95
Alberta.....1946	43.6	41.5	42.9	46.30	23.66	39.34
.....1947	43.0	41.0	42.4	51.68	26.62	44.32
British Columbia.....1946	42.4	40.6	41.9	54.10	27.36	46.59
.....1947	41.0	39.7	40.6	61.70	30.07	52.89
<b>Totals.....1946</b>	<b>42.0</b>	<b>39.5</b>	<b>41.1</b>	<b>53.21</b>	<b>25.91</b>	<b>43.85</b>
<b>.....1947</b>	<b>41.2</b>	<b>38.9</b>	<b>40.4</b>	<b>60.21</b>	<b>28.68</b>	<b>49.78</b>
Industry						
Meat products.....1946	43.3	40.6	42.6	48.02	26.31	42.17
.....1947	43.0	40.8	42.4	55.02	29.91	48.34
Leather boots and shoes.....1946	44.5	40.4	43.2	43.74	22.99	36.81
.....1947	43.5	39.3	42.2	52.65	25.22	43.73
Rough and dressed lumber.....1946	46.1	41.2	44.9	49.74	25.42	43.69
.....1947	44.3	40.4	43.3	59.35	28.19	51.91
Furniture.....1946	43.7	39.3	42.1	49.99	23.78	40.46
.....1947	42.5	38.7	41.2	57.73	26.01	47.03
Fruit and vegetable canning.....1946	43.1	40.8	42.2	47.19	23.95	38.40
.....1947	42.2	39.7	41.3	55.84	26.14	44.88
Bread and bakery products.....1946	44.1	39.5	42.1	46.26	23.50	36.54
.....1947	44.1	39.8	42.3	53.43	26.85	42.29
Pulp and paper mills.....1946	41.8	40.0	41.4	65.92	28.68	57.34
.....1947	40.9	39.4	40.5	74.47	33.50	64.96
Paper products.....1946	41.0	38.7	40.0	52.93	26.01	41.56
.....1947	39.4	37.6	38.7	62.40	28.99	49.62
Printing and publishing.....1946	40.6	39.0	39.9	45.76	24.30	37.07
.....1947	40.0	38.7	39.5	50.21	26.84	41.86
Rubber products.....1946	40.9	39.2	40.4	54.64	25.17	44.97
.....1947	39.7	38.4	39.3	58.64	27.34	48.69
Cotton yarn and cloth.....1946	44.2	40.5	42.8	62.19	24.75	48.58
.....1947	42.1	39.2	41.2	66.57	26.90	53.12
Woollen yarn and cloth.....1946	43.8	39.3	42.2	53.00	23.82	42.71
.....1947	43.6	39.1	42.0	62.32	27.44	50.03
Silk and artificial silk goods.....1946	43.4	41.4	42.8	51.26	25.54	43.36
.....1947	41.4	40.7	41.2	57.87	26.98	46.30
Hosiery and knit goods.....1946	43.7	39.9	41.9	53.45	23.42	39.30
.....1947	43.1	39.4	41.4	60.41	26.26	44.80
Men's clothing.....1946	41.1	39.4	40.5	46.44	24.23	38.35
.....1947	41.2	39.2	40.5	55.09	26.92	44.64
Women's clothing.....1946	41.5	38.8	40.1	51.83	29.02	40.50
.....1947	41.4	38.6	40.1	61.26	31.96	47.10
Tobacco.....1946	42.1	40.4	41.3	51.45	25.17	39.94
.....1947	41.1	39.2	40.4	54.68	28.96	44.21
Distilled and malt liquors.....1946	40.1	37.0	39.3	63.28	27.53	54.38
.....1947	37.4	35.4	36.9	69.33	32.11	60.08
Chemicals and allied products.....1946	40.0	38.8	39.5	55.92	27.08	43.88
.....1947	39.5	38.3	39.0	62.01	30.28	49.19
Clay, glass and stone products.....1946	42.2	39.0	41.3	52.20	25.66	44.40
.....1947	41.2	38.0	40.3	59.12	28.15	50.40
Electrical apparatus.....1946	40.1	38.6	39.6	54.74	27.68	45.46
.....1947	40.6	38.6	39.9	60.51	29.66	50.08
Iron castings.....1946	42.4	38.5	41.2	53.88	26.50	45.44
.....1947	41.9	38.0	40.8	60.84	27.69	51.34

**10.—Average Hours Worked and Average Weekly Earnings of Male and Female Salaried Employees for the Last Week of November, 1946 and 1947—concluded**

Industry	Average Hours Worked			Average Weekly Earnings		
	Male	Female	Both Sexes	Male	Female	Both Sexes
	No.	No.	No.	\$	\$	\$
<b>Industry—concluded</b>						
Primary iron and steel.....	1946 42.6	40.0	41.9	56.06	26.32	47.26
.....	1947 41.1	38.3	40.3	66.86	28.05	56.38
Machinery (other than vehicles).....	1946 41.5	39.6	40.9	52.29	24.67	43.35
.....	1947 40.9	39.1	40.3	56.98	27.48	47.57
Agricultural implements.....	1946 32.5	39.0	34.3	49.86	25.33	43.23
.....	1947 40.2	38.7	39.8	56.41	27.48	48.72
Railway rolling stock.....	1946 44.4	39.5	43.8	55.94	31.17	52.95
.....	1947 43.4	39.3	42.9	59.63	32.81	56.58
Automobile manufacturing.....	1946 41.6	40.6	41.3	66.35	29.03	54.43
.....	1947 40.7	39.8	40.4	75.67	32.99	61.58
Automobile parts.....	1946 42.1	39.1	41.4	56.16	26.65	47.06
.....	1947 41.2	39.7	40.7	64.54	29.86	53.91
Aeroplanes and parts.....	1946 44.0	42.5	43.6	53.61	27.98	46.69
.....	1947 41.1	40.1	40.9	58.15	29.35	51.39
Steel shipbuilding and repairing.....	1946 41.7	37.5	40.7	53.68	26.99	47.54
.....	1947 42.2	39.5	41.6	58.38	27.10	51.32
Structural iron and steel fabrication.....	1946 44.9	41.3	44.1	55.63	26.02	49.44
.....	1947 41.5	40.6	41.3	67.82	29.86	60.77
Foundry and machine shop products.....	1946 44.3	38.4	42.6	50.65	24.98	43.23
.....	1947 43.9	38.0	42.3	57.04	26.97	48.84
Sheet metal work.....	1946 40.9	38.4	40.1	52.19	25.38	43.77
.....	1947 39.8	37.9	39.3	55.03	28.38	47.15
Smelting and refining non-ferrous metallic ores.....	1946 44.0	42.3	43.7	63.14	30.50	57.42
.....	1947 43.8	42.2	43.6	70.46	33.96	65.33
Aluminum and its products.....	1946 42.0	40.1	41.3	57.33	28.95	46.71
.....	1947 40.4	38.7	39.8	61.16	30.25	50.75
Brass and copper.....	1946 41.5	39.4	40.8	53.04	26.95	44.31
.....	1947 40.6	38.6	40.0	62.82	30.92	52.58
Petroleum and its products.....	1946 39.8	38.5	39.6	57.19	27.87	51.68
.....	1947 38.6	37.5	38.4	65.05	32.32	59.24
Miscellaneous manufactured products.....	1946 41.9	38.7	40.6	51.41	25.62	40.76
.....	1947 41.2	38.6	40.2	61.81	29.22	48.99
Durable manufactured goods.....	1946 42.1	39.6	41.3	54.46	26.59	45.91
.....	1947 41.4	39.0	40.7	61.20	29.01	51.73
Non-durable manufactured goods.....	1946 41.9	39.5	41.0	52.07	25.50	42.29
.....	1947 41.0	38.9	40.3	59.33	28.47	48.21
<b>Averages, Leading Manufacturing Industries 1946</b>	<b>42.0</b>	<b>39.5</b>	<b>41.4</b>	<b>53.21</b>	<b>25.91</b>	<b>43.85</b>
<b>1947</b>	<b>41.2</b>	<b>38.9</b>	<b>40.4</b>	<b>60.21</b>	<b>28.68</b>	<b>49.78</b>

**11.—Proportions of Female Wage-Earners and Salaried Employees and the Proportions their Average Weekly Earnings constituted of Men's Earnings for November, 1946 and 1947.**

(As reported by leading manufacturers)

Province	Wage-Earners				Salaried Employees			
	Proportion of Women		Proportion of Women's Wages to Men's		Proportion of Women		Proportion of Women's Salaries to Men's	
	1946	1947	1946	1947	1946	1947	1946	1947
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Nova Scotia.....	14.8	14.7	50.7	47.0	29.9	29.2	50.2	48.0
New Brunswick.....	18.3	19.8	51.1	51.2	31.0	31.2	47.0	46.3
Quebec.....	28.7	27.7	55.8	55.5	32.4	32.0	49.8	49.0
Ontario.....	23.0	22.1	55.4	56.5	36.4	34.8	47.7	46.5
Manitoba.....	22.1	21.7	57.1	57.7	29.9	29.9	48.6	47.7
Saskatchewan.....	12.0	12.8	65.8	64.1	33.5	34.4	52.5	51.3
Alberta.....	15.8	16.2	62.0	64.6	30.6	29.4	51.1	51.5
British Columbia.....	13.8	11.2	59.1	60.1	28.2	27.8	50.6	48.7
<b>Totals.....</b>	<b>23.7</b>	<b>22.7</b>	<b>55.4</b>	<b>55.9</b>	<b>34.1</b>	<b>33.1</b>	<b>48.7</b>	<b>47.6</b>
Durable goods manufactured.....	9.5	8.8	61.2	65.8	30.7	29.4	48.8	47.4
Non-durable goods manufactured.....	35.9	35.1	55.5	55.0	36.8	36.1	49.0	48.0

## 12.—Percentage Distribution of Wage-Earners by Sex and Hours Worked for the Last Week in November, 1946 and 1947

(As reported by leading manufacturers)

Sex and Hours	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
<b>1946</b>									
Male.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 40 hours.....	11.6	13.2	11.2	12.8	11.9	9.0	14.5	19.1	12.7
40-44 ".....	22.3	21.8	20.0	32.3	44.0	38.2	38.1	61.4	30.9
45-48 ".....	41.1	26.1	30.2	41.0	29.5	37.4	34.8	13.3	34.6
49-54 ".....	13.0	21.3	21.9	10.0	8.4	10.5	8.5	3.9	13.4
55 hours and over.....	12.0	17.6	16.7	3.9	6.2	4.9	4.1	2.3	8.4
Female.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 40 hours.....	22.2	19.8	31.5	35.0	31.8	22.4	22.5	32.0	32.8
40-44 ".....	33.7	28.6	29.9	35.3	49.6	38.8	44.6	53.7	34.3
45-48 ".....	13.9	26.2	23.6	25.0	14.0	35.4	27.4	9.0	23.2
49-54 ".....	15.5	21.2	11.7	4.1	3.7	2.6	4.5	2.4	7.5
55 hours and over.....	14.7	4.2	3.3	0.6	0.9	0.8	1.0	2.9	2.2
Both sexes.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 40 hours.....	13.1	14.3	17.0	17.9	16.3	10.7	15.8	20.9	17.5
40-44 ".....	24.0	23.0	22.8	33.0	45.2	38.3	39.2	60.2	31.7
45-48 ".....	37.2	26.2	28.4	37.4	26.1	37.1	33.6	12.7	31.9
49-54 ".....	13.4	21.3	19.0	8.6	7.4	9.5	7.9	3.7	12.0
55 hours and over.....	12.3	15.2	12.8	3.1	5.0	4.4	3.5	2.5	6.9
<b>1947</b>									
Male.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 40 hours.....	11.7	13.2	11.7	12.3	9.5	9.5	9.7	21.5	12.8
40-44 ".....	25.0	20.2	19.9	29.7	40.3	52.8	37.2	62.4	29.8
45-48 ".....	36.5	28.9	31.0	41.5	31.8	22.4	40.1	10.3	34.7
49-54 ".....	13.9	20.4	18.9	11.7	12.8	11.2	9.7	3.4	13.5
55 hours and over.....	12.9	17.3	18.5	4.8	5.6	4.1	3.3	2.4	9.2
Female.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 40 hours.....	19.2	27.7	31.2	35.3	28.7	29.1	21.1	33.7	32.8
40-44 ".....	37.9	26.9	32.5	36.3	52.8	57.2	45.2	55.9	36.2
45-48 ".....	16.1	29.8	22.3	22.6	12.3	9.1	29.6	7.2	21.6
49-54 ".....	19.7	11.3	10.7	4.9	5.7	3.9	1.8	1.8	7.4
55 hours and over.....	7.1	4.3	3.3	0.9	0.5	0.7	2.3	1.4	2.0
Both sexes.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 40 hours.....	12.8	16.1	17.1	17.4	13.6	12.0	11.5	23.0	17.4
40-44 ".....	26.9	21.5	23.3	31.1	43.2	53.3	38.5	61.5	31.3
45-48 ".....	33.4	29.1	28.6	37.4	27.5	20.6	38.4	10.0	31.6
49-54 ".....	14.9	18.6	16.7	10.2	11.2	10.4	8.4	3.2	12.1
55 hours and over.....	12.0	14.7	14.3	3.9	4.5	3.7	3.2	2.3	7.6

### Subsection 5.—Unemployment as Reported by Trade Unions

Quarterly statistics on unemployment are compiled and published in the *Labour Gazette* by the Department of Labour. These are based at the present time, on returns received from about 2,500 local trade union branches, having an aggregate membership of over 500,000 workers. 'Unemployment' means involuntary idleness due to economic causes. Persons engaged in work other than their own trades, or idle because of illness, are not considered as unemployed, while union members retired and members of unions involved in industrial disputes are excluded from the tabulation. As the number of unions making returns varies from one date to another, with consequent variation in the membership upon which the percentages of unemployment are based, it should be understood that the figures for each date have reference only to the reporting organizations.



### 13.—Percentages of Unemployment in Trade Unions, by Provinces, Half-Yearly, 1943-44 and Quarterly, 1945-48

NOTE.—For percentages of unemployment as at June 30 and Dec. 31 from 1915 to 1930, see p. 827 of the 1934-35 edition of the Year Book; for percentages from 1931 to 1942 see p. 751 of the 1946 edition. For monthly data from 1921, see successive issues of the Year Book commencing with the 1922-23 edition. Quarterly figures were first published for 1945.

Month and Year	P.E.I. and N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
June.....1943	0.3	1.1	1.0	0.4	0.6	0.6	1.1	0.1	0.6
December.....1943	2.9	0.3	0.7	0.5	0.8	0.8	0.9	0.5	0.8
June.....1944	0.1	0.6	0.4	0.2	0.2	0.5	0.2	0.2	0.3
December.....1944	--	0.2	0.9	0.4	0.8	0.5	0.7	0.6	0.6
March.....1945	0.5	--	1.2	0.6	0.9	0.8	0.8	0.5	0.7
June.....1945	1.2	0.1	0.6	0.7	0.2	0.9	0.3	0.2	0.5
September.....1945	2.0	0.5	2.4	0.5	0.4	0.4	0.3	2.4	1.4
December.....1945	4.6	4.7	1.8	4.0	1.2	1.3	0.9	3.4	3.0
March.....1946	4.0	1.8	1.4	1.7	1.6	2.1	1.0	3.0	1.9
June.....1946	3.6	3.7	1.0	0.8	1.5	0.7	0.4	2.3	1.3
September.....1946	0.9	1.0	1.0	1.0	0.5	0.4	0.5	1.5	1.0
December.....1946	1.5	0.3	1.4	0.9	1.3	1.5	1.4	3.6	1.5
March.....1947	15.4	1.7	1.8	0.7	1.3	2.0	1.5	2.0	1.8
June.....1947	7.2	2.2	0.5	0.5	0.4	0.5	0.3	0.8	0.8
September.....1947	4.9	0.8	0.6	0.3	0.5	0.2	0.5	1.1	0.7
December.....1947	3.6	8.4	2.2	0.9	1.1	0.6	1.5	2.0	1.7
March.....1948	6.1	3.9	2.7	3.1	1.0	2.8	2.9	3.8	3.1
June.....1948	5.1	6.6	0.9	0.4	0.3	0.2	0.3	2.9	1.3
September.....1948	3.9	0.9	1.1	0.5	0.7	0.4	0.2	2.1	1.0
December.....1948	2.4	7.5	3.3	2.8	1.2	3.7	2.4	6.0	3.4

## Section 4.—Unemployment Insurance

The Unemployment Insurance Act, which came into operation on July 1, 1941, applies to all employed persons with the following exceptions: workers in specified industries or occupations such as agriculture, forestry, fishing, lumbering and logging (unless in an area where the Commission has prescribed that persons employed in lumbering and logging shall be insured—limited at present to the Province of British Columbia), Armed Forces, permanent public service of the Federal Government, Provincial Governments and municipal authorities, private domestic service, private-duty nursing, certain director-officers of corporations, workers on rates other than hourly, daily or piece rates if earning more than \$3,120 per year and (except by consent of the Commission) employment in a hospital or charitable institution not carried on for gain. All employees paid by the hour, day or on piece rate (including a mileage rate) are insured regardless of amount of earnings, together with all employees who receive \$3,120 or less per year under weekly, monthly or yearly rates.

**Unemployment Insurance Fund.**—Both employers and employees contribute to the Fund, the total paid by each group being approximately equal. The Federal Government contributes an amount normally equal to one-fifth of the combined employer-employee contributions and assumes the cost of administration. From July 1, 1941, to June 30, 1949, employers and employees contributed \$565,377,652 to the Fund and the Federal Government added \$113,077,626. Interest and profit on sale of securities amounted to \$50,900,147 and fines of \$27,703 made a total revenue of \$729,383,128.

Benefits first became payable on Jan. 27, 1942, and from that date to June 30, 1949, total benefit payments amounted to \$184,875,895, leaving a balance of \$544,507,234 in the Fund. Reserves of the Fund are invested in Dominion of Canada bonds and, at the end of 1948, the par value of bonds held amounted to \$504,887,500.

WEEKLY RATES OF CONTRIBUTION AND BENEFIT UNDER THE UNEMPLOYMENT INSURANCE ACT

Class	Earnings	Weekly Contributions <sup>1</sup>		Denomina- tion of Stamp <sup>2</sup>	Weekly Benefits <sup>3</sup>	
		By Employee	By Employer		Single Person	Person with One or More Dependants
		cts.	cts.	cts.	\$	\$
0	Less than 90 cents a day or under 16 years of age.....	4	18 cents paid on his behalf by employer <sup>4</sup>	18	4	4
1	\$ 5.40 to \$ 7.49 per week .....	18	12	30	4.20	4.80
2	\$ 7.50 to \$ 9.59 " .....	24	15	39	5.10	6.30
3	\$ 9.60 to \$11.99 " .....	24	18	42	6.00	7.50
4	\$12.00 to \$14.99 " .....	24	21	45	7.20	9.00
5	\$15.00 to \$19.99 " .....	24	24	48	8.10	10.20
6	\$20.00 to \$25.99 " .....	30	30	60	10.20	12.90
7	\$26.00 to \$33.99 " .....	36	36	72	12.30	15.60
8	\$34.00 or more " .....	42	42	84	14.40	18.30

<sup>1</sup> The daily rate of contribution in respect of each class is one-sixth of the weekly rates. <sup>2</sup> Unemployment insurance stamps combine both employer and employee contributions. <sup>3</sup> Rates calculated on assumption that the person is in the same class for the last 180 days in the two years preceding claim. Daily benefit for an insured person without dependants is 34 times the average of his 180 most recent daily contributions, and 45 times the average daily contribution less ten cents per day in the case of a person mainly or wholly maintaining one or more dependants. The daily rate is one-sixth of the weekly rate. <sup>4</sup> Workers in this class make no contributions (the contributions being wholly borne by the employer) and are not eligible for benefit. They may, however, accumulate benefit rights on the basis of the employer contributions.

No benefit is payable during the first nine days of unemployment in a benefit year. After that time, the duration of benefit is related to the employment and contribution history of the employee, the number of days' benefit being equal to one-fifth the number of contribution days during the previous five years, less one-third the number of benefit days in the previous three years. Insurance benefit is paid as a right on fulfilment of four statutory conditions:—

- (1) The payment of not less than 30 weekly (or 180 daily) contributions within two years, while in insured employment. (The two-year period may be extended in certain circumstances.)
- (2) Not more than 50 p.c. of contributions within one year preceding the claim being at the lowest rate specified in the Second Schedule.
- (3) Proper presentation of claim.
- (4) Claimant being at least 16 years of age.

Disqualifications for benefit include: loss of work due to a labour dispute in which the contributor is participating or directly interested; unwillingness to accept suitable employment; being an inmate of any prison or an institution supported out of public funds; refusal to attend a course of instruction or training if directed to do so; residence outside Canada unless otherwise prescribed. Disqualification of a claimant for a period not exceeding six weeks may be made if an employee is discharged by reason of his own misconduct or leaves the employment voluntarily without just cause or refuses suitable employment.

**Statistics of Unemployment Insurance.\***—Benefits under the Unemployment Insurance Act first became payable late in January 1942 but no applications for benefit were received until early February. Except for unusual periods such as the months following the cessation of hostilities in Europe in the spring of 1945, monthly totals of claims received have shown a definite seasonal variation, rising in the late autumn and winter and falling again in the spring. Monthly averages of initial and renewal claims filed have been as follows: 1942, 2,244; 1943, 3,055; 1944, 7,575; 1945, 24,699; 1946, 40,722; 1947, 36,904; 1948, 54,091.

Since September 1943 a record has also been maintained of the number of claims on the live unemployment register on the last working day in each month. This provides a measure of recorded unemployment among insured persons on one day of each month. Monthly averages of ordinary claims on the live register at the end of the month have been: 1944, 10,454; 1945, 41,139; 1946, 96,760; 1947, 68,254; 1948, 88,909.

Monthly statistics on the operation of the Unemployment Insurance Act also provide data on the number of days that claims on the live unemployment register at the end of each month have been continuously on the register, the number of claimants considered entitled and not entitled to benefit, chief reasons for non-entitlement, number of beneficiaries, number of days benefit paid and amount of benefit paid.

In addition to the monthly material on the operation of the Act, annual tabulations of the persons employed in insurable employment are prepared from returns covering the book exchange at Apr. 1, and annual data are published on benefit years established and benefit years terminated.

The number of persons insured under the Unemployment Insurance Act, shown in Table 14, was assumed to be those working in insurable employment as at Apr. 1, as indicated from returns on those receiving insurance books and contribution cards at that time. It should be noted that the industrial classification presented in Table 14 and in Table 19 is different from that used heretofore. These data are now compiled using the Canadian Standard Industrial Classification Manual which has been adopted by all Federal Government agencies.

Table 15 presents information on the persons for whom current benefit years were in existence during 1947. A benefit year is established under the Unemployment Insurance Act when an insured person, upon becoming unemployed, submits a claim and proves that at least 180 daily contributions have been made on his behalf during the preceding two years. Because of other provisions of the Act or because he may regain employment before he actually receives benefit, the setting up of a benefit year does not necessarily result in the receipt of benefit payments. When a benefit year is established it means, merely, that the claimant's right to receive benefit at a certain rate at any time during the succeeding twelve months is determined. Thus, although 512,191 persons held benefit years current in 1947, only 283,725 actually drew benefit in that year.

The benefit year remains in existence either until the authorized benefit rights are exhausted or until 12 months have passed since the date of its establishment, whichever occurs first. Some benefit years established in 1946 were carried over into 1947 so that, although 265,117 persons established benefit years in 1947, a total of 512,191 persons held benefit years currently available in 1947.

\* Statistics of Unemployment Insurance are compiled and published by the Unemployment Insurance Section, Labour and Prices Division, Dominion Bureau of Statistics, from material supplied by the Unemployment Insurance Commission.



The amount of benefit paid, as presented in Table 15, is secured by multiplying each daily rate of benefit by the number of days paid at that rate on the cards representing benefit years upon which benefit was drawn in 1947.

In Table 16, the persons with current benefit years in 1947 are classified according to the number of benefit days paid. Table 17 classifies those who drew benefit by the daily rate at which they were paid. The daily rate of benefit is determined by the amount of the daily average contribution paid on behalf of the claimant during the past two years and by whether or not he has a dependant within the meaning of the Act.

The persons who established benefit years in 1947, those whose benefit years terminated in 1947, with those whose benefit years terminated by exhaustion of rights, shown separately, are classified by age groups in Table 18. In Table 19 the persons who established benefit years in 1947 and the benefit days paid on those benefit years are presented by industrial group and age.

Table 20 classifies those who established benefit years in 1947 and the days paid on those benefit years by occupation groups. The classification of occupations used in this Table is that designed for the Census of the Prairie Provinces, 1946.

A more detailed analysis of these data, by sex and province, is available in the publication "Annual Report on Current Benefit Years Under the Unemployment Insurance Act" issued by the Dominion Bureau of Statistics.

#### 14.—Persons Insured under the Unemployment Insurance Act, classified by Industrial Groups and Sex, 1946 and 1947

NOTE.—These figures include only those who exchanged an unemployment insurance book or were issued a book for the first time in April. They therefore represent an estimate of the number employed in insurable employment as at Apr. 1.

Industrial Group	1946		1947	
	Males	Females	Males	Females
	No.	No.	No.	No.
Agriculture.....	880	570	1,000	500
Forestry and logging.....	1,780	300	13,100	330
Fishing, hunting and trapping.....	180	10	130	20
Mining, Quarrying and Oil Wells—				
Metal mining.....	26,310	670	37,270	1,030
Fuels.....	28,910	440	25,550	190
Non-metal mining.....	11,880	680	5,780	170
Quarrying, clay and sand pits.....	2,040	100	2,050	110
Prospecting.....	1	1	100	—
Totals, Mining, Quarrying and Oil Wells.....	69,140	1,890	70,750	1,500
Manufacturing—				
Food and beverages.....	86,790	32,580	80,630	30,390
Tobacco and tobacco products.....	2,530	4,400	4,000	5,620
Rubber products.....	13,270	5,320	15,500	6,360
Leather products.....	24,020	17,130	21,690	14,180
Textile products (except clothing).....	32,150	26,090	36,060	28,500
Clothing (textile and fur).....	27,420	61,710	31,620	68,140
Wood products.....	59,380	8,180	70,220	7,190
Paper products.....	43,710	10,130	47,650	11,000
Printing, publishing and allied industries.....	29,180	15,780	30,230	14,850
Iron and steel products.....	131,160	17,990	132,310	16,260
Transportation equipment.....	96,360	7,870	122,890	7,410
Non-ferrous metal products.....	22,550	5,740	32,540	7,130
Electrical apparatus and supplies.....	28,260	15,270	33,350	17,430
Non-metallic mineral products.....	22,140	4,310	22,620	3,480
Products of petroleum and coal.....	9,100	1,500	10,890	1,530
Chemical products.....	23,710	10,030	25,230	9,990
Miscellaneous manufacturing industries.....	16,350	12,160	18,330	11,460
Totals, Manufacturing.....	668,080	256,190	735,760	260,920

<sup>1</sup> Included with other sub-groups of mining.

**14.—Persons Insured under the Unemployment Insurance Act, classified by Industrial Groups and Sex, 1946 and 1947—concluded**

Industrial Group	1946		1947	
	Males	Females	Males	Females
	No.	No.	No.	No.
Construction—				
General contractors.....	..	..	77,220	2,060
Special trade contractors (subcontractors).....	..	..	36,500	1,630
Totals, Construction.....	89,950	3,330	113,720	3,690
Transportation, Storage and Communication—				
Transportation.....	181,920	14,740	175,160	14,170
Storage.....	6,440	900	7,460	1,090
Communication.....	5,230	13,660	6,220	14,150
Totals, Transportation, Storage and Communication.....	193,590	29,300	188,840	29,410
Public utility operations.....	16,960	2,530	21,150	2,670
Trade—				
Wholesale.....	62,850	25,400	76,820	28,180
Retail.....	133,670	124,160	158,090	129,400
Totals, Trade.....	196,520	149,560	234,910	157,580
Finance, insurance and real estate.....	24,960	43,900	26,090	44,150
Service—				
Community or public.....	7,450	8,400	8,050	10,180
Government.....	56,220	25,840	62,700	21,140
Recreation.....	9,150	4,760	8,960	4,390
Business.....	8,310	10,400	12,570	11,610
Personal.....	45,790	60,880	53,700	62,920
Totals, Service.....	126,920	110,280	145,980	110,240
Unspecified.....	104,820	37,060	4,470	1,260
Unemployed.....	1	1	87,130	24,900
<b>Totals, All Industries.....</b>	<b>1,493,789</b>	<b>634,920</b>	<b>1,643,630</b>	<b>637,170</b>

<sup>1</sup> Included with Unspecified.

**15.—Persons establishing Benefit Years, Persons with Current Benefit Years, Persons drawing Benefit, Benefit Days Paid and Total Amount of Benefit Paid, by Provinces, 1947.**

Province	Persons establishing Benefit Years	Persons with Current Benefit Years	Persons drawing Benefit	Benefit Days Paid	Total Amount of Benefit Paid <sup>1</sup>
	No.	No.	No.	No.	\$
Prince Edward Island.....	1,622	2,809	2,044	117,351	212,758
Nova Scotia.....	21,716	36,562	24,778	1,594,243	3,268,646
New Brunswick.....	10,040	17,060	10,216	552,551	1,103,266
Quebec.....	82,320	159,154	88,529	4,926,315	9,454,174
Ontario.....	74,128	162,140	77,008	4,281,760	8,385,629
Manitoba.....	16,986	29,885	18,562	1,124,480	2,163,343
Saskatchewan.....	9,245	15,712	10,231	553,575	1,065,500
Alberta.....	13,331	23,147	14,204	685,801	1,383,994
British Columbia.....	35,729	65,722	38,153	1,993,302	4,119,655
<b>Totals.....</b>	<b>265,117</b>	<b>512,191</b>	<b>283,725</b>	<b>15,829,378</b>	<b>31,156,965</b>

<sup>1</sup> Subject to adjustment for errors and omissions in final payments. The total of this column is the summation of the benefit paid to each individual during the calendar year. This is the accepted annual figure to be used in conjunction with the data on persons establishing benefit years and benefit days paid, and is obtained from the daily rate authorized at the time the benefit year is established and the number of benefit days paid during the calendar year. This total is less than the total of the 12 monthly figures published for the year 1947. The difference, 2.8 p.c., is due largely to the fact that the daily rate for some claimants changes during the life of the benefit year as the claimant gains or loses a dependant within the meaning of the Act.

**16.—Persons with Current Benefit Years during 1947, classified by Number of Benefit Days Paid**

Duration of Benefit Paid (days)	Persons	Benefit Days Paid	Duration of Benefit Paid (days)	Persons	Benefit Days Paid	Duration of Benefit Paid (days)	Persons	Benefit Days Paid
No.	No.	No.	No.	No.	No.	No.	No.	No.
No benefit..	228,466	—	95-99.....	4,670	453,209	195-199.....	878	172,852
1-4.....	22,722	59,633	100-104.....	4,348	443,156	200-204.....	822	166,014
5-9.....	25,212	179,876	105-109.....	3,994	426,989	205-209.....	733	151,759
10-14.....	19,020	225,787	110-114.....	3,797	425,131	210-214.....	710	150,506
15-19.....	18,863	315,246	115-119.....	3,317	388,273	215-219.....	579	125,680
20-24.....	16,662	364,851	120-124.....	2,955	360,657	220-224.....	563	124,892
25-29.....	13,852	374,186	125-129.....	2,693	341,953	225-229.....	617	140,003
30-34.....	12,874	412,785	130-134.....	2,464	325,076	230-234.....	440	102,055
35-39.....	12,301	457,675	135-139.....	2,283	312,450	235-239.....	376	89,137
40-44.....	11,011	461,371	140-144.....	2,047	290,565	240-244.....	359	86,854
45-49.....	10,479	490,404	145-149.....	1,824	268,063	245-249.....	286	70,632
50-54.....	10,096	523,923	150-154.....	1,762	267,869	250-254.....	277	69,770
55-59.....	8,992	512,650	155-159.....	1,626	255,311	255-259.....	243	62,432
60-64.....	8,486	526,953	160-164.....	1,460	236,558	260-264.....	225	58,949
65-69.....	7,865	527,865	165-169.....	1,407	234,834	265-269.....	199	53,119
70-74.....	6,764	486,601	170-174.....	1,330	228,732	270-274.....	184	50,032
75-79.....	6,990	537,092	175-179.....	1,295	229,348	275-279.....	174	48,174
80-84.....	6,244	512,036	180-184.....	1,017	185,059	280 or over..	482	140,382
85-89.....	5,833	507,313	185-189.....	924	172,811			
90-94.....	5,272	485,116	190-194.....	827	158,679			
						<b>Totals.....</b>	<b>512,191</b>	<b>15,829,378</b>

**17.—Persons drawing Benefit and Benefit Days Paid during 1947, classified by Daily Rate of Benefit**

Daily Rate of Benefit	Persons	Benefit Days Paid	Daily Rate of Benefit	Persons	Benefit Days Paid	Daily Rate of Benefit	Persons	Benefit Days Paid
No.	No.	No.	No.	No.	No.	No.	No.	No.
Under \$0-60..	38	1,268	\$1-30-\$1-39..	14,765	833,980	\$2-10-\$2-19..	6,819	399,231
\$0-60-\$0-69..	113	5,764	\$1-40-\$1-49..	10,263	549,672	\$2-20-\$2-29..	9,207	518,701
\$0-70-\$0-79..	413	21,420	\$1-50-\$1-59..	9,752	514,852	\$2-30-\$2-39..	21,519	1,209,774
\$0-80-\$0-89..	960	46,254	\$1-60-\$1-69..	11,982	667,639	\$2-40.....	71,131	3,963,036
\$0-90-\$0-99..	1,461	68,611	\$1-70-\$1-79..	19,591	1,203,691			
\$1-00-\$1-09..	3,354	181,996	\$1-80-\$1-89..	13,875	760,645			
\$1-10-\$1-19..	4,579	237,920	\$1-90-\$1-99..	15,929	848,141			
\$1-20-\$1-29..	8,446	467,487	\$2-00-\$2-09..	59,528	3,329,296			
						<b>Totals.....</b>	<b>283,725</b>	<b>15,829,378</b>

**18.—Persons establishing Benefit Years, Benefit Days Paid on Years Established, and Benefit Years Terminated, by Age Groups, 1947**

Age Group	Persons establishing Benefit Years	Days Paid on Benefit Years Established	Benefit Years Terminated	
			Total Terminated	Total Exhausted
	No.	No.	No.	No.
Under 20 years.....	20,474	343,457	15,090	3,000
20-24 ".....	49,564	1,289,365	48,389	6,099
25-29 ".....	38,005	1,050,510	36,775	4,035
30-34 ".....	28,522	789,081	31,441	2,914
35-39 ".....	25,030	694,057	30,343	2,757
40-44 ".....	21,737	623,245	27,396	2,526
45-49 ".....	19,411	578,114	24,032	2,514
50-54 ".....	15,905	539,567	19,879	2,511
55-59 ".....	14,606	558,104	18,350	2,868
60-64 ".....	12,785	600,498	15,512	3,592
65 years or over.....	18,832	1,369,135	24,141	9,767
Not given.....	246	8,249	609	76
<b>Totals, All Ages.....</b>	<b>265,117</b>	<b>8,443,382</b>	<b>292,017</b>	<b>42,659</b>



**19.—Persons establishing Benefit Years in 1947 and Benefit Days Paid on these Benefit Years, by Industrial Groups and Age Groups**

Industrial Group	Persons establishing Benefit Years			Benefit Days Paid		
	Under 25 Years	25-59 Years	60 Years or Over	Under 25 Years	25-59 Years	60 Years or Over
	No.	No.	No.	No.	No.	No.
Agriculture.....	463	1,194	141	6,585	25,065	3,596
Forestry and logging.....	702	2,185	250	12,630	50,841	8,698
Fishing, hunting and trapping.....	69	226	29	661	3,570	714
Mining, Quarrying and Oil Wells—						
Metal mining.....	609	1,300	178	5,766	23,462	7,325
Fuels.....	775	5,026	1,430	16,711	94,142	126,867
Non-metal mining.....	656	1,290	167	7,499	25,132	5,816
Quarrying, clay and sand pits.....	154	496	91	2,316	12,974	3,806
Prospecting.....	—	6	1	—	22	—
Totals, Mining, Quarrying and Oil Wells..	2,194	8,118	1,867	32,292	155,732	143,814
Manufacturing—						
Food and beverages.....	4,894	9,442	1,747	112,883	309,223	101,262
Tobacco and tobacco products.....	286	546	138	9,590	20,533	10,587
Rubber products.....	819	1,037	86	8,804	18,723	4,830
Leather products.....	2,245	3,447	517	65,843	102,783	27,142
Textile products (except clothing).....	2,755	3,278	487	59,916	79,854	37,390
Clothing (textile and fur).....	2,499	3,465	362	59,038	94,209	18,165
Wood products.....	2,362	5,916	1,362	47,655	144,628	68,758
Paper products.....	1,382	2,110	478	32,619	59,466	34,627
Printing, publishing and allied industries.....	997	1,338	256	25,963	48,543	19,593
Iron and steel products.....	3,697	10,048	1,796	65,521	249,925	118,981
Transportation equipment.....	4,054	16,826	2,281	80,084	346,589	136,557
Non-ferrous metal products.....	450	938	149	11,003	31,655	10,191
Electrical apparatus and supplies.....	956	1,475	201	19,519	43,337	16,301
Non-metallic mineral products.....	706	1,151	263	13,944	30,239	13,064
Products of petroleum and coal.....	53	168	62	852	5,137	4,606
Chemical products.....	795	1,619	305	21,854	54,532	21,781
Miscellaneous manufacturing industries.....	1,285	1,950	334	28,988	57,417	19,494
Totals, Manufacturing.....	30,235	64,754	10,814	664,076	1,696,793	663,329
Construction.....	7,044	26,284	5,234	123,024	653,026	211,552
Transportation, Storage and Communication—						
Transportation.....	5,059	11,460	3,259	103,847	353,155	280,658
Storage.....	367	929	171	10,414	32,754	9,886
Communication.....	517	496	47	16,610	24,499	3,741
Totals, Transportation, Storage and Communication.....	5,943	12,885	3,477	130,871	410,408	294,285
Public utility operations.....	249	743	219	5,987	24,827	16,953
Trade—						
Wholesale.....	1,894	3,435	578	39,326	111,660	42,887
Retail.....	9,770	13,601	1,907	278,294	516,862	139,533
Totals, Trade.....	11,664	17,036	2,485	317,620	628,522	182,420
Finance, insurance and real estate.....	1,097	1,369	441	34,657	56,258	36,412
Service—						
Community or public.....	814	1,854	474	19,621	61,588	27,749
Government.....	4,074	13,828	3,308	153,661	659,341	221,468
Recreation.....	497	1,197	411	11,966	43,029	21,570
Business.....	437	995	270	9,982	34,487	17,906
Personal.....	4,462	10,338	2,143	107,559	324,126	116,604
Totals, Service.....	10,284	28,212	6,606	302,789	1,122,571	405,297
Unspecified.....	94	210	54	1,630	5,065	2,563
<b>Totals, All Industries<sup>1</sup>.....</b>	<b>70,038</b>	<b>163,216</b>	<b>31,617</b>	<b>1,632,822</b>	<b>4,832,678</b>	<b>1,969,633</b>

<sup>1</sup> The total number of persons establishing benefit years was actually 265,117 since 246 persons whose ages were not given are not included in this table; 8,249 benefit days were paid to these 246 persons, so that the total benefit days paid was 8,443,382.

## 20.—Persons establishing Benefit Years in 1947 and Benefit Days Paid on these Benefit Years, by Occupation Groups

Occupation Group	Persons estab- lishing Benefit Years	Benefit Days Paid	Occupation Group	Persons estab- lishing Benefit Years	Benefit Days Paid
No.	No.		No.	No.	
Managerial.....	2,402	90,897	Fishing, Trapping and		
Professional.....	2,191	74,423	Logging.....	3,415	85,929
Clerical.....	31,083	1,326,057	Fishing and trapping....	836	31,923
Transportation.....	15,229	459,211	Logging (including fores-		
Communications.....	1,667	70,106	try).....	2,579	54,006
Commercial.....	14,955	577,021	Mining.....	7,253	211,858
Financial.....	221	7,417	Manufacturing and		
Service (other than			mechanical.....	55,135	1,489,711
professional).....	24,918	943,817	Electric light and power		
Personal (other than			production and station-		
Domestic).....	12,681	485,866	ary enginemmen.....	3,022	99,765
Domestic.....	7,613	225,584	Construction.....	27,214	746,887
Protective.....	4,274	221,838	Labourers.....	75,456	2,235,526
Other.....	350	10,529	Unspecified.....	49	945
Agricultural.....	907	23,812	<b>Totals, All Occupations</b>	<b>265,117</b>	<b>8,443,382</b>

**Employment Service.**—The Unemployment Insurance Commission operates a free employment service under authority of the Unemployment Insurance Act, 1940. The public employment offices, which had functioned under a joint Dominion-Provincial arrangement for more than two decades, were taken over on Aug. 1, 1941, and added to by the Commission in all provinces except Quebec. The Commission also established offices in Quebec and the Provincial Government thereupon reduced the number of its own offices.

## 21.—Applications for Employment, Positions Offered and Placements Effected by Employment Offices, 1938-47, and by Provinces, 1946 and 1947

NOTE.—Figures by provinces from 1920 to 1945, are given in the corresponding table of previous Year Books, commencing with the 1926 edition. Totals for the years 1920-37 are given at p. 766 of the 1938 edition.

Year and Province	Applications Registered		Vacancies Notified		Placements Effected	
	Males	Females	Males	Females	Males	Females
	No.	No.	No.	No.	No.	No.
<b>Totals, 1938.....</b>	<b>584,727</b>	<b>197,937</b>	<b>276,851</b>	<b>124,390</b>	<b>275,338</b>	<b>106,957</b>
<b>Totals, 1939.....</b>	<b>579,645</b>	<b>208,327</b>	<b>271,654</b>	<b>130,739</b>	<b>270,020</b>	<b>114,862</b>
<b>Totals, 1940.....</b>	<b>653,445</b>	<b>235,150</b>	<b>344,921</b>	<b>166,955</b>	<b>336,507</b>	<b>138,599</b>
<b>Totals, 1941.....</b>	<b>568,695</b>	<b>262,767</b>	<b>344,796</b>	<b>206,908</b>	<b>331,997</b>	<b>175,766</b>
<b>Totals, 1942.....</b>	<b>1,044,610</b>	<b>499,519</b>	<b>949,909</b>	<b>431,933</b>	<b>597,161</b>	<b>298,460</b>
<b>Totals, 1943.....</b>	<b>1,681,411</b>	<b>1,008,211</b>	<b>2,002,153</b>	<b>1,034,447</b>	<b>1,239,900</b>	<b>704,126</b>
<b>Totals, 1944.....</b>	<b>1,583,010</b>	<b>902,273</b>	<b>1,779,224</b>	<b>949,547</b>	<b>1,101,854</b>	<b>638,063</b>
<b>Totals, 1945.....</b>	<b>1,855,036</b>	<b>661,948</b>	<b>1,733,362</b>	<b>687,886</b>	<b>1,095,641</b>	<b>397,940</b>
<b>Totals, 1946.....</b>	<b>1,464,533</b>	<b>494,164</b>	<b>1,335,200</b>	<b>567,331</b>	<b>624,052</b>	<b>235,360</b>
<b>Totals, 1947.....</b>	<b>1,189,646</b>	<b>439,577</b>	<b>1,060,134</b>	<b>476,643</b>	<b>549,376</b>	<b>220,473</b>
Prince Edward Island.....1946	8,071	2,440	5,094	2,385	3,891	1,598
.....1947	5,582	2,454	3,344	1,830	2,694	1,216
Nova Scotia.....1946	67,877	17,259	40,954	17,726	25,013	9,346
.....1947	60,309	16,782	25,128	12,649	17,734	7,373
New Brunswick.....1946	52,487	12,138	38,999	13,075	18,623	5,893
.....1947	44,705	10,689	31,363	9,239	17,519	5,065
Quebec.....1946	353,468	124,349	341,937	106,968	112,795	32,865
.....1947	290,131	92,953	265,782	98,131	111,948	40,049
Ontario.....1946	539,631	168,484	564,742	268,020	270,982	94,674
.....1947	405,689	153,324	449,460	222,782	222,722	86,422
Manitoba.....1946	93,493	39,207	63,217	39,504	36,554	23,251
.....1947	83,948	39,749	54,046	37,033	35,059	23,091
Saskatchewan.....1946	64,738	24,285	41,509	21,399	23,214	12,639
.....1947	50,786	22,229	35,595	17,849	21,677	10,627
Alberta.....1946	87,465	33,868	77,925	32,753	46,512	19,932
.....1947	74,954	32,734	63,155	28,984	43,211	18,231
British Columbia.....1946	197,303	72,134	160,823	65,501	86,468	35,162
.....1947	173,542	68,663	132,261	48,146	76,812	28,399

## Section 5.—Vocational Training\*

During 1948, the Federal Department of Labour, in co-operation with the Provincial Governments, carried on various training projects under the Vocational Training Co-ordination Act, 1942: (1) youth training; (2) assistance to students; (3) apprenticeship training; (4) training of workers released from gainful employment; (5) vocational training on the secondary school level; (6) training of military personnel; (7) training of discharged members of the Forces.

In regard to the last-named project, discharged members of the Forces are approved for vocational training by the Department of Veterans Affairs, but the Department of Labour is responsible for setting up training centres and carrying out the training.

The Vocational Training Advisory Council, appointed under the authority of the Act, continues to advise the Minister on the general aspects of training plans. This Council is representative of employers, organized labour, vocational education authorities, veterans' and women's organizations.

### Subsection 1.—The Vocational Training Program of the Department of Labour

Table 22 shows the allotment of federal funds to the provinces for the year ended Mar. 31, 1949, and the total payments made by the Federal Government against these allotments up to Apr. 30, 1949.

#### 22.—Federal Government Allotments for Vocational Training for the Year Ended Mar. 31, 1949, and Claims Paid to Apr. 30, 1949, by Provinces

Province	Youth Training		Training of Discharged Members of the Forces		Apprentice Training	
	Allotment	Claims Paid	Allotment	Claims Paid	Allotment	Claims Paid
	\$	\$	\$	\$	\$	\$
Prince Edward Island.....	10,000	6,371	12,000	1,011	...	...
Nova Scotia.....	30,000	26,344	225,000	115,140	25,000	17,509
New Brunswick.....	27,000	18,686	175,000	104,858	25,000	11,752
Quebec.....	125,000	124,977	360,000	117,073	...	...
Ontario.....	50,000	50,000	550,000	311,016	135,000	115,040
Manitoba.....	15,000	4,595	165,000	99,224	40,000	17,445
Saskatchewan.....	36,000	34,662	150,000	45,768	45,000	16,137
Alberta.....	40,000	27,641	160,000	54,756	110,000	60,806
British Columbia.....	45,000	40,999	185,000	119,682	30,000	16,570
<b>Totals.....</b>	<b>378,000</b>	<b>334,275</b>	<b>1,982,000</b>	<b>968,528</b>	<b>410,000</b>	<b>255,259</b>

**Youth Training.**—Each province submitted to the Department of Labour a list of the various courses proposed for Youth Training. These, on approval by the Minister of Labour, were incorporated into appropriate schedules which set forth the regulations governing the operation of the different courses. As in previous years, the training consisted, for the most part, of various general and specialized courses for rural young people in agriculture, home craft and handicrafts, and other related subjects.

\* Full information on this subject is given in the "Canadian Vocational Training Annual Report of 1948-49".



**Assistance to Students.**—Under the Youth Training Division of the Vocational Training Agreement with each province, assistance was provided for nurses-in-training at hospitals and students in courses leading to a university degree, who had good academic standing but who, without financial assistance, could not continue training. At the discretion of the provincial authorities, assistance could be given in the form of a grant or a loan, or a combination of the two.

The value of Federal Government assistance to students at universities and nurses-in-training may be assessed from the following approximate amounts which have been paid to the provinces for that purpose during the past ten years:—

<i>Province</i>	<i>Amount</i>	<i>Province</i>	<i>Amount</i>
	\$		\$
Prince Edward Island.....	18,110	Manitoba.....	22,900
Nova Scotia.....	45,125	Saskatchewan.....	133,515
New Brunswick.....	88,760	Alberta.....	83,265
Quebec.....	566,235	British Columbia.....	188,455
Ontario.....	212,955		

During the fiscal year 1948-49 Federal Government expenditures for assistance to students and nurses amounted to \$128,483 in the form of grants, and \$75,853 in the form of loans. Financial help was given to 440 nurses-in-training and 2,200 students at universities. Included in the total number of university students were 406 taking courses in medicine, 88 in dentistry, 391 in engineering, 64 in agriculture, and 777 in arts and science.

**Apprentice Training.**—Apprenticeship Acts are in force in all provinces, and agreements for federal assistance are in effect with all except Prince Edward Island and Quebec. During 1948 some additional trades were brought within the Apprenticeship Acts.

With the approaching completion of Veteran Training, it has been possible to give increased attention to the promotion of apprenticeship. Particular attention has been given to the building trades, because the construction industry has pointed out that it will be greatly handicapped unless the number of skilled mechanics can be substantially increased. The Training Branch has maintained close contact with the Canadian Construction Association and the National Joint Conference Board of the Construction Industry on matters pertaining to apprenticeship in the building trades. However, in spite of the efforts that have been put forward by the Training Branch and the provinces on behalf of apprenticeship generally, the number of apprentices registered in the seven provinces with which the Department of Labour has an Apprenticeship Agreement was reduced from 11,902 on Mar. 31, 1948, to 10,976 on Mar. 31, 1949. There has been a very large decrease in the number of veterans under apprenticeship, that has not been compensated for by young men going into the designated trades.

A conference of Directors of Apprenticeship was called by the Department of Labour in October, 1948, and was attended by the Provincial Directors of Apprenticeship from all provinces except British Columbia. Information and suggestions were exchanged and among the results was one concerning the class training of apprentices. The conference expressed itself as favourable to the introduction of pre-employment training, somewhat along the lines that were followed in the case of veterans, when trainees were admitted to full-time class training for a period of approximately six months before they went to an employer. The

Federal Government has authorized this type of training and its adoption is optional with each province. The principle of pre-employment class training has been accepted by all provinces with which there is an agreement, except Saskatchewan.

The amounts spent by the Department of Labour under the Apprenticeship Agreements are shown in Table 22 on p. 701.

**Training of Unemployed Persons.**—Agreements completed in 1945 between the Federal Government and certain provinces provided for the training or retraining of workers who had been released from employment. Under these agreements, the Federal Government undertook to pay approximately 75 p.c. of the costs of training workers selected by representatives of the Provincial Governments and the National Employment Service.

An amendment to the Canadian Vocational Training Co-ordination Act in 1948 expanded the provisions for the training of unemployed persons so that those who were not in receipt of unemployment insurance benefit would be eligible. As a result greater authority and responsibility were given to the provinces in the selection of trainees, the decision in regard to starting classes, and the operation of such classes. The approved costs under the new arrangement were shared equally between the provinces and the Federal Government, with each province recommending to the Minister of Labour the scale of training allowances that should be paid.

Although the schedule covering the training of unemployed persons was accepted by all provinces, training was not carried out in Prince Edward Island, Quebec or Ontario, where it was considered that the necessity for it had not developed.

The fact that employment remained at a high level throughout 1948 resulted in rather slow development of the training for unemployed persons. At Mar. 31, 1949, 190 persons were training under this schedule in Nova Scotia, 82 in New Brunswick, 123 in Manitoba, 53 in Saskatchewan, 106 in Alberta, and 10 in British Columbia, making a total of 564.

Federal expenditures for this type of training during the fiscal year 1948-49 amounted to \$165,849.

**Vocational Training at the Secondary School Level.**—Ten-year agreements have been completed with all provinces, covering federal assistance for vocational training at the secondary school level. Each province is given an annual outright grant of \$10,000. In addition, \$1,910,000 is allotted each year among the provinces in proportion to the number of young persons in each province who are in the age group 15 to 19 years. The agreements provide for a further contribution of \$10,000,000 to be allotted on the same basis, and to be available, up to Mar. 31, 1952, for capital expenditures on approved projects for buildings and equipment. From the foregoing it will be seen that the total amount of federal money involved in this plan is \$30,000,000. With the exception of the \$10,000 outright grant to each province each year, Provincial Governments must contribute amounts equal to the contributions of the Federal Government.

The Vocational Schools' Assistance Agreement has been responsible for a great expansion in vocational training. New schools have been built and equipped, and many additions to existing schools have been provided. The Vocational Training Program generally has been improved and made available to a much larger proportion of the youth of the country. As examples, new technical

schools are under construction at Halifax, Yarmouth, Winnipeg and Vancouver, the last named at a cost of over \$1,500,000. In Quebec, 16 new schools or additions to existing schools have been constructed and are already in operation.

Up to Mar. 31, 1949, the end of the fourth year of this agreement, federal expenditures on the construction and equipment of new vocational schools have amounted to approximately \$4,022,925. During the same period federal contributions towards maintenance and operating costs of vocational schools, both municipally and provincially owned, amounted to approximately \$6,560,945.

**Training of Military Personnel.**—Although no specific schedule of the Vocational Training Agreement provided for the training of Navy, Army and Air Force personnel, that type of training was again carried out quite extensively during 1948. Canadian Vocational Training, in co-operation with the provinces, has been training army personnel as motor mechanics, vehicle mechanics, sheet metal workers, welders, machine tool operators, draftsmen, radio mechanics, clerks, kitchen organizers and in various building trades.

**Training of Discharged Members of the Forces.**—During 1948 the training of discharged members of the Forces was carried on under the Vocational Training Agreement, which was in effect in all provinces. As in previous years, training was carried out in co-operation with the provincial authorities, and was given to those veterans who were approved for it by the Department of Veterans Affairs. Throughout the year close relations were maintained with the Department of Veterans Affairs and with the National Employment Service, both at head office and in the field.

The training of veterans was a steadily diminishing responsibility of the Training Branch during 1948. At Mar. 31, 1948, 4,993 veterans were undergoing training; by Mar. 31, 1949, the number had been reduced to 424. The Vocational Training Program for veterans had been practically completed by the middle of 1949 without any serious complaints from veterans or from the employers of veterans who were trained under the Program. The number of veterans trained by the Department of Labour up to Mar. 31, 1949, totalled 134,444. The expenditures made by the Federal Government, which bore the full cost of Veteran Training, amounted, up to the same date, to \$25,462,502.

### **Subsection 2.—Vocational Training of Veterans\***

The vocational training of veterans which was authorized under the provisions of the Veterans Rehabilitation Act and under which more than 90,000 veterans were approved for training to assist in their rehabilitation in civil life, has, apart from some types of long-term training, come to a close. From a peak of 40,422 veterans in training in November, 1946, the numbers have shown a steady decline until, at the end of May, 1949, only 4,076 veterans were in training.

By Order in Council 5983, dated Dec. 29, 1948, authority was granted to provide vocational training under the Veterans Rehabilitation Act, Sect. 7, to certain young men under 30 years of age, who had served in the Merchant Marine and who had not been effectively rehabilitated. By June 30, 1949, some 269 persons had been approved for training and 85 had actually commenced their training under this authority.

\* Revised under the direction of the Deputy Minister, Department of Veterans Affairs.



The vocational training of veterans has been used as a means of rehabilitation by approximately 10 p.c. of all the veterans of the Second World War. The true value of the program will be determined by the value of these trainees to the national production over the next 30 to 35 years.

## Section 6.—Industrial Accidents and Workmen's Compensation

### Subsection 1.—Fatal Industrial Accidents

Statistics of fatal industrial accidents have been compiled by the Federal Department of Labour since 1903. The data are now obtained from provincial Workmen's Compensation Boards, the Board of Transport Commissioners and other Government authorities, from departmental correspondents and press reports.

#### 23.—Fatal Industrial Accidents, by Industries, 1945-48

Industry	Numbers				Percentages of Total			
	1945	1946	1947	1948 <sup>a</sup>	1945	1946	1947	1948 <sup>a</sup>
Agriculture.....	114	119	117	94	8.5	8.6	7.9	7.0
Logging.....	166	145	192	162	12.3	10.5	13.0	12.0
Fishing and trapping.....	20	41	30	30	1.5	3.0	2.0	2.2
Mining, non-ferrous smelting and quarrying.....	188	174	190	190	14.0	12.6	12.9	14.1
Manufacturing.....	269	346	265	262	20.0	25.1	18.0	19.4
Construction.....	127	132	169	173	9.4	9.6	11.5	12.8
Electric light and power.....	24	22	40	44	1.8	1.6	2.7	3.2
Transportation and public utilities.....	292	237	289	244	21.7	17.2	19.6	18.1
Trade.....	52	53	57	42	3.9	3.9	3.9	3.1
Finance.....	—	3	8	3	—	0.2	0.5	0.2
Service.....	88	99	110	105	6.5	7.2	7.5	7.8
Unclassified.....	5	7	8	1	0.4	0.5	0.5	0.1
<b>Totals.....</b>	<b>1,345</b>	<b>1,378</b>	<b>1,475</b>	<b>1,350</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

**Causes of Fatal Accidents.**—Preliminary figures indicate that during 1948, 397 fatal accidents to gainfully employed persons were caused by moving trains, vehicles, etc. Falls of persons caused 221 fatalities and falling objects 214. Other fatal accidents included 157 caused by dangerous substances, 38 by striking against or being struck by objects, 35 by working machines, 21 by animals, 20 by hoisting apparatus, 19 by prime movers, 12 by handling objects, and 6 by tools. Included in the category "other causes" were 210 fatalities of which 156 were due to industrial disease, strain, etc. The number of accidents, fatal and non-fatal, dealt with by the provincial Workmen's Compensation Boards are shown in Subsection 2.

### Subsection 2.—Workmen's Compensation\*

In all provinces legislation is in force providing for compensation for injury to a workman by accident arising out of and in the course of employment, or by a specified industrial disease, except where the workman is disabled for less than a stated number of days. The Acts of all provinces except Newfoundland provide for a compulsory system of collective liability. Under the Newfoundland Act, each employer is individually liable to pay for compensation and medical aid for accidents which occur in the course of employment. Under the collective liability system, to ensure payment of compensation, each provincial Act provides for an accident

\* More detailed information is given in "Workmen's Compensation in Canada, A Comparison of Provincial Laws," issued by the Department of Labour.

fund, administered by the province, to which employers are required to contribute at a rate determined by the Workmen's Compensation Board in accordance with the hazards of the industry. A workman to whom these provisions apply has no right of action against his employer for injury from an accident during employment. In Ontario and Quebec, public authorities, railway and shipping companies, and telephone and telegraph companies are individually liable for compensation as determined by the Board, and pay a proportion of the expenses of administration. A federal Act provides for compensation for accidents to Federal Government employees according to the conditions laid down by the Act of the province in which the accident occurs. Seamen who are not under a provincial Workmen's Compensation Act are entitled to compensation under the Merchant Seamen Compensation Act, 1946.

Free medical aid is given to workmen during disability in all provinces.

Compensation is payable in all provinces for anthrax and for poisoning from arsenic, lead, mercury and phosphorus and silicosis is compensated under certain conditions. Other diseases compensated vary according to the industries of the provinces.

**Scope of the Workmen's Compensation Acts.**—The Acts vary in scope but in general, they cover construction, mining, manufacturing, lumbering, fishing, transport and communications and the operation of public utilities. Undertakings in which not more than a stated number of workmen are usually employed may be excluded, except in Alberta. In Newfoundland the compensation legislation applies, in general, to persons employed under a contract of service or apprenticeship. In the following paragraphs information is given regarding all provinces except Newfoundland which receives separate treatment at p. 708.

**Benefits.**—Under each Act, a fixed period must elapse between the date of the accident and the date when compensation begins but in all cases medical aid is given from the date of the accident. This waiting period varies from three to seven days and in all provinces compensation is paid for the waiting period, if disability continues beyond it.

At present, compensation in fatal cases is paid as follows:—

Burial expenses, \$150 in Nova Scotia, New Brunswick, Manitoba and British Columbia, \$175 in Quebec and Alberta, \$125 in Ontario and Saskatchewan, and \$100 in Prince Edward Island. In certain cases costs of transporting the body are also allowed.

To a widow or invalid widower, or to a foster mother, as long as the children are under the age limit, a monthly payment of \$50 is made in Nova Scotia, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia, of \$45 in Quebec, and of \$40 in Prince Edward Island and New Brunswick; in addition a lump sum of \$100 is paid in all provinces.

For each child in the care of a parent or foster mother receiving compensation, a monthly payment of \$10 is made in Prince Edward Island, New Brunswick and Quebec; of \$12 in Ontario, Manitoba and Saskatchewan; of \$12.50 in Nova Scotia and British Columbia and of \$15 in Alberta. In Alberta an additional payment of \$10 a month is made, and in British Columbia the monthly payment of \$12.50 is continued to children between 16 and 18 years of age who are attending school.

To each orphan child, \$25 a month is paid in Saskatchewan, \$22.50 in Nova Scotia, \$20 in Prince Edward Island, New Brunswick, Ontario, Manitoba and British Columbia and \$15 in the other provinces (in Alberta, an additional payment

not exceeding \$10 a month may be given), with a maximum of \$90 per month to one family in Nova Scotia.

Except in the case of invalids, payments to children are not continued beyond the age of 16 in Prince Edward Island, Nova Scotia, Ontario, Manitoba and Saskatchewan, 18 in Quebec, Alberta and British Columbia, and in New Brunswick 18, or the age when they leave school. In Prince Edward Island, Nova Scotia, Ontario, Manitoba and Saskatchewan payments for children may be made up to the age of 18 if it is desirable to continue their education. In Manitoba and British Columbia payments to invalid children are continued until recovery, while the other provinces make payments only for the length of time the Boards consider that the workman would have contributed to their support.

Where the only dependants are persons other than consort or children, all the Acts provide that compensation is to be a reasonable sum proportionate to the pecuniary loss but the total monthly sum to be paid to all such dependants is limited to \$100 in Ontario, \$60 in Manitoba, \$85 in Alberta, \$45 in Prince Edward Island and Nova Scotia and \$55 in British Columbia. In British Columbia, however, if there are also dependants such as a widow, an invalid widower or children, the maximum payable to other dependants is \$40 per month. In all provinces, compensation to dependants other than consort or children is continued only for such time as the Board considers that the workman would have contributed to their support.

Except in Ontario, Saskatchewan, Alberta and British Columbia, maximum benefits payable to dependants in case of death of the workman are two-thirds of the earnings. In Ontario and Saskatchewan the average earnings are the maximum amount payable.

The minimum payable to a consort and one child in Quebec is \$55 per month, \$65 if there is more than one child; in Manitoba the minimum is \$12.50 per week, or if there is more than one child, \$15 per week. In Saskatchewan a widow with one child must be paid at least \$62 a month and if there are more children, \$70.

The rate for total disablement in all provinces except Ontario and Saskatchewan is a weekly payment for its duration equal to  $66\frac{2}{3}$  p.c. of the average weekly earnings; in Ontario and Saskatchewan it is 75 p.c. Except in New Brunswick, the Acts fix minimum sums that must be paid. The weekly minima are \$12.50 in Prince Edward Island and British Columbia, \$15 in Nova Scotia, Quebec, Manitoba, Saskatchewan and Alberta. In Ontario the minimum is \$100 a month. If, however, average earnings fall below such minima, a sum equal to earnings is paid in all provinces except Nova Scotia and Saskatchewan. For partial disablement, similar provision is made in all provinces except New Brunswick, Ontario, Saskatchewan and Alberta, i.e., two-thirds of the difference in earnings before and after the accident. In Ontario and Saskatchewan it is 75 p.c. of the difference. In New Brunswick and Alberta, the amount is determined by the Board according to the impairment of earning capacity, but in New Brunswick two-thirds of the diminution of earnings is payable for temporary partial disablement. In all provinces except British Columbia, if the difference is 10 p.c. or less, and in New Brunswick in any case where the Board considers it would be to the advantage of the workman, a lump sum may be given.

The average earnings on which compensation is based must not exceed \$3,000 in Ontario and Saskatchewan, and \$2,500 in all the other provinces. If the workman's earnings at the time of the accident are not considered a proper basis for compensation, the Board may use as a basis the average earnings of another person in the same grade of work. Compensation paid workmen under 21 years of age may



be raised later, if it appears likely that their earning power would have increased had the injury not occurred.

Under Newfoundland's individual liability system, the Act of 1948 makes the employer liable to pay compensation for death or injury by accident and for disability or death caused by certain industrial diseases. In fatal cases, compensation is a lump sum calculated in accordance with rules set out in the Act but such lump sum together with the additional allowances provided for dependants under 16 may not exceed \$6,000. Weekly payments may be made for disability. In cases of total disability, payments may not exceed 50 p.c. of the workman's average weekly earnings, and in cases of partial disability, compensation is a proportionate amount, according to the diminution of average earnings. One-sixth of such weekly payment may be paid as a supplementary allowance for each child under 16, but the total of such allowances and the weekly payment may not exceed 75 p.c. of average earnings in case of total disability and 75 p.c. of the diminution of earnings in case of partial disability.

The statistics of workmen's compensation published by the provincial boards are not on a comparable basis and are therefore presented in a series of tables.

#### 24.—Operations of the Nova Scotia Workmen's Compensation Board, 1939-48

NOTE.—Estimates for outstanding claims are not included. Statistics for the years 1917-35 are given at p. 757 of the 1938 Year Book; those for 1936-38 at p. 642 of the 1947 edition.

Year	Com- pensation	Medical Aid	Total	Accidents Compensated
	\$	\$	\$	No.
1939.....	1,391,933	189,031	1,580,964	11,823
1940.....	1,285,390	190,616	1,476,006	13,948
1941.....	1,285,753	217,129	1,502,882	15,150
1942.....	1,730,169	211,663	1,941,832	17,455
1943.....	2,897,718	196,511	3,094,229	16,926
1944.....	2,693,483	185,392	2,878,875	19,027
1945.....	1,243,148	207,000	1,450,148	18,396
1946.....	1,181,207	194,912	1,376,119	19,496
1947.....	1,074,399	151,896	1,226,295	18,890
1948.....	1,054,654	168,403	1,223,057	19,741

#### 25.—Operations of the New Brunswick Workmen's Compensation Board, 1939-48

NOTE.—Statistics for the years 1920-35 are given at p. 757 of the 1938 Year Book; those for 1936-38 at p. 642 of the 1947 edition.

Year	Weekly Com- pensation	Permanent Partial Disability	Fatal		Medical Aid		Permanent Total Disability Reserve
			Funeral Expenses	Reserve for Pensions	Doctors' Fees and Trans- portation	Hospital and Nursing Service	
	\$	\$	\$	\$	\$	\$	\$
1939.....	220,053	78,326	1,833	69,175	103,115	59,295	5,361
1940.....	259,571	62,159	1,759	108,227	84,594	48,200	10,309
1941.....	410,058	115,845	3,659	118,472	130,130	75,570	14,364
1942.....	459,528	82,632	3,275	143,392	125,837	89,246	1
1943.....	486,304	113,332	2,900	94,414	115,121	82,266	5,085
1944.....	658,666	388,992	2,624	142,921	125,116	94,809	8,330
1945.....	772,210	141,998	3,392	142,624	125,300	102,256	1
1946.....	776,646	186,638	3,125	153,702	152,102	101,753	12,901
1947.....	834,738	244,676	3,514	230,560	168,650	136,140	128,372
1948.....	673,685 <sup>1</sup>	133,009 <sup>2</sup>	3,429 <sup>2</sup>	177,847 <sup>2</sup>	131,867 <sup>2</sup>	102,640 <sup>2</sup>	146,060 <sup>2</sup>

<sup>1</sup> Not reported.

<sup>2</sup> Subject to revision.

**26.—Operations of the Quebec Workmen's Compensation Commission, 1939-48**

NOTE.—Statistics for the years 1928-35 are given at p. 778 of the 1940 Year Book; those for 1936-38 at p. 643 of the 1947 edition.

Year	Claims Schedules 1 and 2	Com- pensation Schedule 1	Medical Aid Schedule 1
	No.	\$	\$
1939.....	53,942	3,143,787	778,665
1940.....	65,704	4,301,893	1,093,928
1941.....	82,568	4,730,726	1,210,325
1942.....	96,888	6,792,098	1,475,123
1943.....	90,564	6,462,259	1,389,008
1944.....	84,308	7,012,031	1,414,138
1945.....	82,724	7,737,865	1,458,809
1946.....	90,900	8,595,754	1,663,587
1947.....	96,135	9,774,008	1,836,483
1948.....	93,028 <sup>1</sup>	5,394,374 <sup>1</sup>	1,345,078 <sup>1</sup>

<sup>1</sup> Subject to revision.

**27.—Operations of the Ontario Workmen's Compensation Board, 1939-48**

NOTE.—Statistics for the years 1915-35 are given at p. 759 of the 1938 Year Book; those for 1936-38 at p. 643 of the 1947 edition.

Year	Benefits Awarded				Accidents Reported
	Schedule 1		Schedule 2 <sup>1</sup> and Crown Com- pensation	Total Benefits	
	Com- pensation	Medical Aid			
	\$	\$	\$	\$	
1939.....	4,174,408	1,094,693	883,306	6,152,407	60,520
1940.....	4,852,470	1,408,250	1,022,158	7,282,878	81,116
1941.....	6,662,466	1,772,376	1,464,052	9,898,894	113,822
1942.....	7,225,733	1,977,854	1,733,376	10,936,963	133,513
1943.....	6,932,198	1,948,048	2,264,507	11,144,753	131,458
1944.....	8,317,960	1,888,846	2,278,793	12,485,599	123,820
1945.....	8,690,344	1,889,830	2,555,764	13,135,938	118,220
1946.....	11,797,877	2,358,949	2,345,197	16,502,023	138,570
1947.....	12,412,296	2,735,271	2,613,175	17,760,742	168,767
1948.....	15,272,487	4,082,032	4,355,763	23,710,282	179,811

<sup>1</sup> Comprises employers individually liable.

**28.—Operations of the Manitoba Workmen's Compensation Board, 1939-48**

NOTE.—Statistics for the years 1917-35 are given at p. 760 of the 1938 Year Book; those for 1936-38 at p. 643 of the 1947 edition.

Year	Benefits Awarded			Accidents Com- pensated
	Compensation	Medical Aid	Total	
	\$	\$	\$	
1939.....	736,903	196,090	932,993	9,401
1940.....	829,905	230,345	1,060,250	11,202
1941.....	1,041,261	241,187	1,282,448	13,378
1942.....	1,165,627	245,255	1,410,882	13,785
1943.....	1,386,104	240,492	1,626,596	13,948
1944.....	1,379,142	225,088	1,604,230	16,229
1945.....	1,353,094	211,125	1,564,219	16,196
1946.....	1,414,829	264,742	1,679,571	14,795
1947.....	1,439,275	295,295	1,734,570	15,746
1948.....	1,684,309	347,782	2,032,091	16,783

**29.—Operations of the Saskatchewan Workmen's Compensation Board, 1939-48**

NOTE.—Statistics for the years 1930-35 are given at p. 760 of the 1938 Year Book; those for 1936-38 at p. 644 of the 1947 edition.

Year	Benefits Awarded			Accidents Com- pensated
	Compensation	Medical Aid	Total	
	\$	\$	\$	No.
1939.....	388,848	103,897	492,745	4,984
1940.....	371,894	121,455	493,349	5,260
1941.....	472,281	136,827	609,108	5,825
1942.....	539,942	150,679	690,621	6,766
1943.....	676,592	138,355	814,947	6,921
1944.....	853,022	156,584	1,009,616	7,702
1945.....	800,516	176,697	977,213	7,509
1946.....	1,175,704	207,129	1,382,833	9,560
1947.....	1,550,635	238,257	1,788,893	11,860
1948.....	1,577,081	294,261	1,871,342	11,944

**30.—Operations of the Alberta Workmen's Compensation Board, 1939-48**

NOTE.—Statistics for the years 1921-35 are given at p. 761 of the 1938 Year Book; those for 1936-38 at p. 644 of the 1947 edition. Amounts shown do not include sums transferred to pension fund, administration expenses, nor sums set aside to cover estimated liabilities. Accidents compensated do not include cases for medical aid only.

Year	Benefits Awarded			Accidents Reported	Accidents Com- pensated
	Com- pensation	Medical Aid	Total		
	\$	\$	\$	No.	No.
1939.....	464,398	339,388	803,786	13,504	6,584
1940.....	447,362	292,565	739,927	14,632	6,384
1941.....	497,913	316,273	814,186	16,928	7,755
1942.....	608,885	322,375	931,260	18,680	7,509
1943.....	816,493	368,299	1,184,792	19,700	7,602
1944.....	498,303	234,708	733,011	19,286	7,988
1945.....	517,879	249,639	767,518	19,154	8,891
1946.....	634,725	304,828	939,553	23,068	10,751
1947.....	721,226 <sup>r</sup>	365,778 <sup>r</sup>	1,087,004 <sup>r</sup>	25,864 <sup>r</sup>	11,632 <sup>r</sup>
1948.....	858,116	441,735	1,299,851	28,557	12,253

**31.—Operations of the British Columbia Workmen's Compensation Board, 1939-48**

NOTE.—Figures for the years 1917-35 are given at p. 762 of the 1938 Year Book; those for 1936-38 at p. 644 of the 1947 edition.

Year	Benefits Awarded			Claims (gross)
	Compensation	Medical Aid	Total	
	\$	\$	\$	No.
1939.....	3,404,434	720,265	4,124,699	33,173
1940.....	3,692,950	834,073	4,527,023	38,487
1941.....	4,601,810	935,422	5,537,232	46,496
1942.....	6,941,736	1,586,164	8,527,900	65,475
1943.....	7,344,122	1,184,253	8,528,375	68,635
1944.....	8,031,613	1,182,236	9,213,849	60,463
1945.....	8,047,679	1,115,513	9,163,192	55,584
1946.....	8,413,654	1,353,596	9,767,250	59,947
1947.....	9,390,825	1,756,758	11,147,583	75,018
1948.....	10,202,450	2,270,329	12,472,780	74,064



## Section 7.—Wages and Hours of Labour

### Subsection 1.—The Regulation of Wages and Hours of Labour

The regulation of wages and hours of persons in private employment in Canada is within provincial jurisdiction, and all the provinces, except Prince Edward Island, have legislation on the subject. The Nova Scotia Male Minimum Wage Act, 1945, has not been proclaimed in force.

In Nova Scotia the minimum wage law applies only to women, while in Ontario, though the Act applies to both sexes, the Orders apply only to women. In Manitoba and Alberta there are separate Orders for men and women and also in British Columbia but in the latter Province certain Orders cover both sexes. In Quebec and Saskatchewan, Orders apply to both sexes. The first two Orders under the New Brunswick Minimum Wage Act, 1945, applying to women workers in hotels and restaurants and in shops became effective in 1948. Under the Newfoundland Labour (Minimum Wage) Act, 1947, an Order governing bus-drivers in the city of St. John's was issued in September, 1949.

In Quebec, under the Collective Agreement Act, hours and wages, and also apprenticeship, vacations with pay and family allowances provisions established by a collective agreement voluntarily entered into by employers and trade unions or groups of employees may be made legally binding by Order in Council on all employers and employees in the industry in the district covered by the agreement, if the parties are sufficiently representative of the industry. At Mar. 31, 1947, 96 agreements had been generalized to apply either throughout the Province or to a certain district. These agreements covered 258,000 work people and 22,000 employers. The agreements in force throughout the Province apply to the following industries: building materials; the manufacture of women's cloaks and suits, dresses, millinery, men's and boys' clothing, men's and boys' hats and caps, fine gloves and work gloves, shoes, furniture, paints, corrugated and uncorrugated paper boxes; the tanning industry and the lithographing industry and elevator construction. Other agreements concern industries in particular cities or parts of the Province including all building trades and printing trades in the large urban centres and many rural districts. In 1948, eight new agreements were extended for the first time and eight affecting longshoremen and municipal employees were repealed.

The Industrial Standards Acts of New Brunswick, Nova Scotia, Ontario and Saskatchewan and the Alberta Labour Act provide that wages and hours agreed upon at a conference of representatives of employers and employees called by the Minister of Labour or his representative may be made legally binding by Order in Council on the industry in the area concerned. The Nova Scotia Act applies only to construction work at Halifax, Dartmouth and Sydney.

In Nova Scotia, eight schedules for individual building trades, six in one zone which were renewals of previous schedules and two in another made for the first time in 1948, were in effect at the end of 1948. In New Brunswick, schedules made in 1948 for two building trades in one zone replaced earlier schedules.

In Ontario, there were 130 schedules in force at the end of 1948. Throughout the Province, schedules were in effect for brewery workers, cloakmakers, the men's and boys' clothing industry and the hard furniture industry. In the construction industry, one schedule covered several building trades in one city, and 53 schedules, each for a single trade in a single locality, covered one or more trades in 27 localities. In other industries also, schedules were in effect only for certain zones: for bakers in one zone, for soft furniture manufacturing in one, for coal hoisting in one, for the

coal industry in one, for taxi drivers in one, for the retail gasoline service industry in four and for barbers in 63 zones. Of the above, six were schedules made for the first time in 1948.

In Saskatchewan, 16 schedules were in effect at the end of 1948. These included one for barbers covering the whole province; others covered bakers, carpenters, electrical workers, painters, garage and service station employees, jewellery workers, shoe repairers and beauty culture operators, in one or more areas. During 1948, one new schedule was made binding and 12 were rescinded.

In Alberta, 22 schedules were in effect at the end of 1948. These included in one or more areas, bakers and bakery salesmen, foundry workers, certain individual building trades, dairy employees, garage and service station employees, radio service employees, laundry and dry-cleaning employees and barbers. During the year, two new schedules were made binding and five were revoked.

Part II of the Manitoba Fair Wage Act provides similar machinery for fixing wages and hours in any business, trade or undertaking, except agriculture. Under this legislation, Orders in Council have been passed fixing wages and hours for the baking industry and for the barbering and hairdressing trades.

Legislation in all provinces, except Prince Edward Island, which applies to mines, factories and, in some cases, to shops, restricts the hours of work of women and young persons or, in some provinces, of all workers. In Nova Scotia, Quebec, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia, there are also statutes dealing only with hours of work. The Nova Scotia Act is not in force. Several Minimum Wage Acts give authority for the regulation of hours as well as wages.

**Minimum Wage Regulations.**—Table 32 shows the minimum rates in effect in June, 1949, for several classes of establishments in the principal cities. In Alberta and British Columbia the rates for all workers, in Manitoba the rates for men, and in New Brunswick the rates for women, apply throughout the Province. In other provinces, and with respect to women in Manitoba, lower rates are in effect outside each of the indicated urban areas of the Province. The rates given apply to the hours specified or, except at Montreal and Winnipeg, to the normal work-week of the establishment, if less.

**32.—Minimum Weekly Rates for Experienced Workers in the Principal Cities, June, 1949**

Item and Type of Establishment	Halifax <sup>1</sup>	Saint John <sup>1</sup>	Montreal	Toronto <sup>1</sup>	Winnipeg <sup>2</sup>	Regina <sup>3</sup>	Edmonton <sup>4</sup>	Vancouver <sup>5</sup>
Hours per week...	44-48	48	48-60 <sup>6</sup>	48	44	44	48	44
	\$	\$	cts. per hour	\$	\$	\$	\$	\$
Factories.....	15-00	—	35	16-80	19-50	21-00	18-00	0-40 <sup>7</sup>
Laundries, etc....	15-00	—	35	16-80	19-50	21-00	18-00	0-40 <sup>7</sup>
Shops.....	15-00	14-40	35	16-80	19-50	21-00	18-00	17-00 <sup>8</sup>
Hotels, restaurants, etc.....	15-00	0-23 <sup>7</sup>	30 <sup>9</sup>	16-80	19-50	21-00	18-00	18-00
Beauty parlours...	15-00	—	35	16-80	19-50	21-00	18-00	20-00
Theatres and amusement places	15-00	—	35	16-80	19-50	0-50 <sup>7</sup>	18-00	18-00
Offices.....	15-00	—	35	16-80	19-50	21-00	18-00	18-00 <sup>1</sup>

<sup>1</sup> Females only. <sup>2</sup> Females; 50 cents for men applying to 48-hour week. <sup>3</sup> Rates apply to 36 hours or more. <sup>4</sup> Females; \$25 for men over 21 years. <sup>5</sup> In hotels, beauty parlours, theatres and amusement places, rates apply to 40 hours or more; in shops to 39 hours or more; and in offices to 36 hours or more. <sup>6</sup> Rates apply to 48 hours in factories and offices, except in specified cases, and in laundries; 54 hours in shops, beauty parlours and theatres; 60 hours in hotels. <sup>7</sup> Hourly rates. <sup>8</sup> Females; \$18 for men over 21 years. <sup>9</sup> Kitchen help, 35 cents; cooks, 40 cents.

**Regulation of Hours and Annual Holidays.**—In Ontario and Alberta there is a maximum eight-hour day and 48-hour week for the workers to whom the statutes apply. In British Columbia hours are limited to eight in a day and 44 in a week. In Saskatchewan a 1947 Act requires time and one-half to be paid for work after eight hours daily and 44 hours weekly. This Act covers all workers employed in, or within a five-mile radius of, any city, workers in all factories in the Province, and in shops and offices in the towns or villages within the scope of Minimum Wage Orders. In the other three above-mentioned provinces the Acts apply to most workers, except farm labourers and domestic servants.

A 1949 Manitoba Act requires time and one-half to be paid for work done after eight hours in a day and after 48 hours in a week for men workers and 44 for women. The Act covers most industrial workers in the Province.

In all provinces that have Acts regulating hours longer hours may be worked in an emergency or by permission of the administrative authority.

In Nova Scotia and Alberta time and one-half is payable for all work in excess of 48 hours or of the regular work-week if less, but in Nova Scotia the provision applies only to women and only where the legal minimum rate is being paid. In British Columbia time and one-half must be paid after 44 hours. In most classes of industrial establishments in Quebec, time and one-half is payable after 48 hours. In hotels and restaurants and other workplaces in the larger towns and villages of Saskatchewan time and one-half is payable after 48 hours.

Six provinces have provided for annual holidays with pay for work people in most industries. In five of these provinces—Quebec, Ontario, Manitoba, Alberta and British Columbia—workers are entitled to a week's holiday with pay after a year of employment. Two weeks' holiday is given in Saskatchewan after a year of employment and, in Alberta, after two years of employment. A worker employed for less than a year is entitled, in Quebec, to a half-day for each month of employment and in Saskatchewan to one day for each month.

Coal miners in Alberta are entitled to a one day holiday with pay for every 20 days worked in a month but not more than two weeks holiday in a year.

Excluded from the holiday provisions are farm workers in all provinces, and domestic servants in all but Manitoba and Saskatchewan. The Manitoba Act also excludes independent contractors and railway and express companies under federal jurisdiction. In addition Quebec exempts building trades, forest operations, public corporations, janitors and watchmen and certain part-time workers; Ontario, professional workers, funeral directing and embalming; Manitoba and Saskatchewan, ranching and market gardening; and British Columbia, horticulture.

### **Subsection 2.—Statistics of Wage Rates and Hours for Various Classes of Labour\***

Statistics of rates of wages and hours of labour have been collected for many years by the Federal Department of Labour and are published in the *Labour Gazette* and, later, in annual reports supplementary to the *Labour Gazette*. The first report was issued in 1921 but the records begin, in many cases, with the year 1901. The index numbers show the general movement of wage rates for the main industrial groups as well as for individual industries, but these cannot be used to

\* For more detailed information see "Wage Rates and Hours of Labour in Canada", published by the Department of Labour as a supplement to the *Labour Gazette*.



compare wage rates in one industry with those in another. The statistics are average straight-time wage rates or average straight-time piece-work earnings and therefore do not include over-time or other premium payments.

Tables 33 and 34 show the index numbers of wage rates by main industrial groups and by industries. From 1930 to 1933 there was a general decrease in wage rates but increases have been general each year since that time. During the period 1939-48, the rise in the index number of wage rates amounted to 95.8.

### 33.—Index Numbers of Wage Rates for certain Main Groups of Industries, 1939-48

(1939=100)

NOTE.—Figures back to 1901 may be obtained from the report "Wage Rates and Hours of Labour in Canada, 1947", published by the Department of Labour as a supplement to the *Labour Gazette*. Figures for 1921-38 are given at p. 650 of the 1947 Year Book.

Year	Logging	Coal Mining	Metal Mining	Manu- fac- turing	Con- struc- tion	Water Trans- por- tation	Steam Rail- ways	Elec- tric Rail- ways	Tele- phones	Laun- dries	General Average
1939.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1940.....	104.9	102.1	102.8	104.3	104.5	105.2	100.0	103.9	101.3	105.4	103.9
1941.....	114.0	109.4	112.2	115.2	111.6	113.3	109.4	109.1	106.4	110.5	113.1
1942.....	125.9	113.1	118.7	125.5	118.6	125.8	114.8	115.8	112.0	116.5	122.5
1943.....	143.1	124.8	123.1	136.8	127.7	138.8	125.5	121.2	121.9	127.3	133.7
1944.....	146.1	146.0	125.2	141.4	129.6	142.2	125.5	125.7	122.4	128.9	137.9
1945.....	153.3	146.2	128.2	146.5	131.1	144.6	125.5	126.6	125.6	135.4	141.8
1946.....	167.4	146.7	135.7	161.5	143.9	162.3	142.3	139.5	125.2	147.5	155.2
1947.....	195.1	166.7	157.7	183.3	155.0	183.8	142.3	162.3	132.2	170.5	173.7
1948.....	218.8	192.9	173.1	205.9	176.3	213.5	170.2	175.0	140.4	183.0	195.8

### 34.—Index Numbers of Wage Rates, by Industries, 1944-48

(1939=100)

Industry	1944	1945	1946	1947	1948
<b>Logging</b> .....	<b>146.1</b>	<b>153.3</b>	<b>167.4</b>	<b>195.1</b>	<b>218.8</b>
Logging, Eastern Canada.....	143.2	151.4	162.8	188.3	212.0
Logging, British Columbia coastal.....	156.8	160.5	184.9	220.8	244.2
<b>Mining</b> .....	<b>134.8</b>	<b>136.5</b>	<b>140.6</b>	<b>161.7</b>	<b>181.9</b>
Coal mining.....	146.0	146.2	146.7	166.7	192.9
Metal mining.....	125.2	128.2	135.7	157.7	173.1
<b>Manufacturing</b> .....	<b>141.4</b>	<b>146.5</b>	<b>161.5</b>	<b>183.3</b>	<b>205.9</b>
Primary textile products.....	146.0	151.5	165.6	190.1	224.2
Cotton yarn and cloth.....	139.1	148.7	161.6	189.0	230.6
Woolen yarn and cloth.....	160.3	163.5	183.1	209.8	241.3
Knitting—hosiery, underwear and outerwear.....	146.2	150.3	162.5	184.3	213.8
Rayon yarn and fabric.....	147.0	148.9	164.7	186.8	218.2
Clothing.....	144.3	156.3	176.2	189.5	205.9
Men's and boys' suits and overcoats.....	151.9	164.1	182.1	203.0	214.8
Work clothing.....	141.0	148.0	160.3	173.0	197.1
Women's and misses' suits and coats.....	137.5	152.7	176.2	186.2	206.3
Dresses.....	138.9	152.5	179.2	178.5	196.9
Men's shirts.....	146.5	157.0	171.7	196.6	209.4
Rubber products.....	139.8	143.4	167.7	190.1	213.7
Pulp and its products.....	125.7	127.3	148.6	173.8	193.6
Pulp.....	135.3	136.3	162.8	193.5	214.3
Newsprint.....	119.6	120.9	137.3	158.4	174.3
Paper other than newsprint.....	124.7	126.8	147.0	170.9	191.8
Paper boxes.....	133.1	138.5	151.6	175.8	202.3
Printing and publishing.....	116.3	118.5	127.3	138.9	158.2
Newspaper printing.....	116.5	119.1	125.7	136.6	152.6
Job printing.....	114.9	117.7	129.8	142.4	165.9
Lumber and its products.....	148.2	156.1	178.3	205.2	226.2
Sawmill products.....	148.7	157.5	184.8	215.7	236.5
Planing mills, sash, doors, etc.....	139.4	147.2	161.2	180.2	195.9
Wooden furniture.....	154.8	159.5	171.7	192.6	218.8
Edible plant products.....	134.2	139.4	153.0	175.0	194.5
Flour.....	135.0	139.2	153.1	178.0	196.5
Bread and cake.....	134.3	139.0	152.6	174.2	191.6

## 34.—Index Number of Wage Rates, by Industries, 1944-48—concluded

Industry	1944	1945	1946	1947	1948
<b>Manufacturing—concluded</b>					
Edible plant products—concluded					
Biscuits.....	135.8	142.0	159.2	184.1	210.5
Confectionery.....	131.8	139.0	148.7	167.0	189.3
Fur products.....	130.5	140.5	150.7	170.5	195.6
Leather and its products.....	145.4	153.5	167.5	198.5	219.3
Leather tanning.....	156.8	167.0	181.1	215.7	239.7
Boots and shoes.....	142.6	150.1	164.0	194.2	214.1
Meat products.....	137.3	141.0	165.4	189.1	214.0
Iron and its products.....	142.6	148.2	159.6	180.4	200.5
Crude, rolled and forged products.....	143.5	149.1	170.6	189.6	215.3
Foundry and machine shop products.....	140.8	149.5	161.0	189.6	212.1
Machinery, engines, boilers, tanks, etc.....	147.9	147.3	155.8	177.4	195.8
Aircraft.....	138.7	148.7	154.6	162.9	173.3
Steel shipbuilding.....	145.3	145.9	148.8	163.7	175.7
Motor-vehicles.....	126.3	130.3	140.4	151.1	163.1
Motor-vehicle parts and accessories.....	147.1	148.2	162.3	191.0	215.3
Heating and cooking apparatus.....	149.5	155.4	163.5	192.0	226.6
Agricultural machinery.....	155.8	157.5	178.5	207.3	232.0
Tobacco products.....	140.3	140.5	156.9	186.4	232.2
Beverages (brewery products).....	123.5	127.9	148.4	160.7	182.9
Electric current production and distribution.....	132.5	134.4	143.5	154.8	169.7
Electrical products.....	154.1	156.8	169.1	195.5	225.6
<b>Construction.....</b>	<b>129.6</b>	<b>131.1</b>	<b>143.9</b>	<b>155.0</b>	<b>176.3</b>
<b>Transportation and Communications.....</b>	<b>128.0</b>	<b>128.8</b>	<b>143.5</b>	<b>149.3</b>	<b>174.3</b>
Transportation.....	128.7	129.2	145.9	151.6	178.8
Water transportation (inland and coastal).....	142.2	144.6	162.3	183.8	213.5
Steam railways.....	125.5	125.5	142.3	143.3	170.2
Electric street railways.....	125.7	126.6	139.5	162.3	175.0
Communications—telephone.....	122.4	125.6	125.2	132.2	140.4
<b>Service—Laundries.....</b>	<b>128.9</b>	<b>135.4</b>	<b>147.5</b>	<b>170.5</b>	<b>183.0</b>
<b>General Average.....</b>	<b>137.9</b>	<b>141.8</b>	<b>155.2</b>	<b>173.7</b>	<b>195.8</b>

## 35.—Average Hourly Wage Rates for Selected Occupations in Manufacturing, by Provinces, 1948

Occupation	Maritime Provinces	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia
	\$	\$	\$	\$	\$	\$	\$
<b>Work Clothing—</b>							
Sewing machine operators, female.....	0.43	0.50	0.67	0.59	1	0.59	0.66
Cutters, male.....	0.92	0.84	1.09	1.02	1	1.28	1.11
<b>Newsprint—</b>							
Machine tenders.....	2.34	2.14	2.08	1	1	1	2.32
Finishers.....	1.02	1.03	1.04	1	1	1	1.10
<b>Wood Products—</b>							
Sawyers.....	0.77	0.78	0.90	0.83	1	0.94	1.49
Machine hands.....	0.66	0.70	0.82	0.86	0.89	0.92	1.12
<b>Meat Products—</b>							
General butchers.....	1.07	1.06	1.01	1.12	1.16	1.09	1.17
Motor-truck drivers.....	0.82	1.04	1.03	1.09	1.04	1.10	1.08
<b>Iron and Steel Products—</b>							
Machinists.....	0.98	1.02	1.08	0.95	0.96	1.05	1.33
Moulders.....	1.14	1.05	1.25	0.99	0.89	1.07	1.24
<b>Woollen Yarn and Cloth—</b>							
Spinners, male.....	0.69	0.77	0.84			0.70	
Weavers, female.....	0.62	0.67	0.72			0.60	

1 Insufficient data.

### 36.—Average Standard or Normal Hours of Labour per Week for Male Workers in Selected Industries, by Provinces, 1947 and 1948

Industry	Maritime Provinces	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia
	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.
Work clothing.....1947	43·6	45·7	42·5	40·9	—	40·3	40·7
1948	41·5	45·9	41·4	40·2	1	40·0	40·1
Newsprint.....1947	48·0	48·0	48·0	—	—	—	44·0
1948	41·7	41·1	41·0	41·6	42·2	42·4	38·7
Wood products.....1947	..	54·3	47·0	46·3	49·6	47·9	40·6
1948	53·1	53·7	46·4	46·1	46·3	47·5	40·7
Meat products.....1947	44·0	48·0	45·4	44·8	44·2	44·6	43·9
1948	44·2	45·6	45·1	44·1	44·2	44·0	44·1
Iron and its products...1947	..	47·0	44·7	45·5	44·0	42·5	40·2
1948	47·1	46·8	44·5	45·1	44·1	42·8	40·1
Woollen yarn and cloth..1947	..	49·7	47·0	43·6	—	—	43·2
1948	49·3	48·5	46·8	45·3			

<sup>1</sup> Insufficient data.

### 37.—Average Hourly Wage Rates for Selected Occupations in Certain Cities, 1948

Industry and Occupation	Halifax	Montreal	Toronto	Winnipeg	Vancouver
	\$	\$	\$	\$	\$
<b>Construction—</b>					
Bricklayers and masons.....	1·44	1·50-1·75	1·75	1·55	1·75
Carpenters.....	1·23	1·25	1·50	1·35	1·55
Electricians.....	1·33	1·35	1·65	1·35	1·70
Painters.....	1·10	1·15	1·25	1·15	1·35
Plasterers.....	1·32	1·50	1·80	1·50	1·75
Plumbers.....	1·30	1·45	1·60	1·50	1·65
Sheet-metal workers.....	1·10	1·25	1·65	0·95	1·65
Labourers.....	0·75	0·80	0·85	0·75	1·00
<b>Manufacturing—</b>					
Unskilled factory labour, male.....	0·71	0·81	0·84	0·83	1·06
<b>Transportation—</b>					
Electric Street Railways—					
One-man car and bus operators <sup>1</sup> .....	1·01	1·00	1·10	1·00	1·10
Linemen.....	1·13	0·96	1·28	1·23	1·50
Shop and barnmen.....	0·82-1·15	0·70-1·09	0·99-1·33	0·85-1·10	0·93-1·25
Electricians.....	1·10	1·09	1·31	1·10	1·20
Trackmen and labourers.....	0·78-0·91	0·70-0·86	0·99-1·10	0·75-0·80	0·94-0·99
<b>Printing and Publishing—</b>					
Compositors—					
News.....	1·21	1·52	1·78	1·17	1·53
Job.....	0·99	1·30	1·38	1·25	1·43
Pressmen—					
News.....	1·38	1·43	1·78	1·19	1·57
Job.....	0·97	1·19	1·32	1·18	1·37
Bookbinders.....	0·81	1·17	1·29	1·16	1·40
Bindery girls.....	0·41	0·58	0·71	0·60	0·81

<sup>1</sup> Maximum rates based on length of service. Two-man car operators receive 7 cents less in Montreal, 6 cents less in Vancouver and 5 cents less in Toronto and Winnipeg.



## 38.—Standard or Normal Hours of Labour per Week in Certain Cities, 1948

Industry	Halifax	Montreal	Toronto	Winnipeg	Vancouver
	hrs.	hrs.	hrs.	hrs.	hrs.
Construction—					
Trades.....	40	44	40	40	40
Labourers.....	40 and 44	44 and 50	40 and 44	44 and 48	40 and 44
Transportation—Electric street railways..	44	50	40 and 42.5	44-48	44-46
Printing and publishing.....	40	40	40	40-48	37.5 and 40

**Wages of Farm Labour.**—With few exceptions, farm wage-rates in Canada during 1948 continued the upward trend which has been in evidence since 1940, the year in which this wage-rate series was started. Compared with 1940, the current rates of wages paid to male hired help on farms have increased from two and one-half to three and one-half times. Average wage rates are shown on the basis of rates paid with board provided by the employer and without board. The information is provided by a corps of volunteer farm correspondents located throughout Canada.

## 39.—Average Wages of Male Farm Help per Day and per Month, as at Jan. 15, May 15 and Aug. 15, 1945-48

NOTE.—Figures for 1940-42 are given at pp. 732-733 of the 1943-44 Year Book and for 1943-44 at pp. 653-654 of the 1947 edition.

Province and Year	Jan. 15				May 15				Aug. 15			
	Daily		Monthly		Daily		Monthly		Daily		Monthly	
	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
P.E.I.—												
1945.....	2.18	2.95	45.45	63.50	2.29	2.89	50.19	71.33	2.55	3.36	52.59	76.25
1946.....	2.39	3.11	49.54	72.06	2.53	3.28	55.76	77.37	2.62	3.38	55.76	77.96
1947.....	2.59	3.30	52.55	74.24	2.70	3.50	57.31	80.00	2.69	3.54	55.50	75.16
1948.....	2.70	3.57	51.79	73.83	2.86	3.77	57.36	81.25	2.97	3.90	60.00	83.46
N.S.—												
1945.....	2.89	3.74	54.41	84.00	3.21	3.88	64.07	88.15	3.43	4.21	69.15	91.44
1946.....	3.06	3.92	61.23	89.27	3.08	3.99	70.39	98.89	3.24	4.11	67.45	91.57
1947.....	3.34	4.18	71.16	97.30	3.41	4.43	69.65	101.05	3.57	4.36	72.44	101.00
1948.....	3.65	4.59	75.26	106.74	3.46	4.32	72.44	102.61	3.86	4.76	71.75	102.06
N.B.—												
1945.....	3.00	3.85	68.11	90.00	3.15	4.04	75.32	98.86	3.52	4.32	80.63	103.46
1946.....	3.31	4.31	80.71	105.73	3.33	4.11	76.98	98.85	3.56	4.44	78.61	103.17
1947.....	3.59	4.53	83.08	103.27	3.59	4.43	82.86	108.44	3.77	4.69	86.88	107.63
1948.....	3.85	4.79	88.00	115.17	3.92	4.98	87.94	113.55	4.25	5.19	93.07	118.68
Que.—												
1945.....	2.66	3.43	58.47	80.88	2.74	3.53	59.68	82.16	3.22	4.12	68.83	92.36
1946.....	2.89	3.79	62.68	86.50	3.10	3.96	68.94	93.96	3.46	4.36	74.48	98.41
1947.....	3.32	4.23	72.31	94.92	3.42	4.36	76.34	102.15	4.03	4.90	84.02	109.58
1948.....	3.76	4.80	82.99	112.10	3.80	4.80	84.25	116.69	4.16	5.16	90.14	118.66

**39.—Average Wages of Male Farm Help per Day and per Month, as at Jan. 15, May 15 and Aug. 15, 1945-48—concluded**

Province and Year	Jan. 15				May 15				Aug. 15			
	Daily		Monthly		Daily		Monthly		Daily		Monthly	
	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
<b>Ont.—</b>												
1945.....	2.87	3.69	53.96	75.88	3.03	3.92	59.86	83.46	3.46	4.36	64.34	87.39
1946.....	3.04	3.93	57.06	80.51	3.29	4.19	64.80	89.40	3.62	4.55	68.40	92.40
1947.....	3.36	4.28	63.92	90.48	3.59	4.54	70.66	95.84	3.70	4.96	74.29	99.48
1948.....	3.62	4.66	69.43	97.11	4.11	4.80	74.28	101.11	4.41	5.47	80.70	108.21
<b>Man.—</b>												
1945.....	2.41	3.45	50.40	75.84	3.20	3.99	70.01	91.77	3.97	4.98	74.84	97.76
1946.....	2.64	3.54	49.88	71.97	3.24	4.25	68.75	91.39	4.71	5.66	77.50	102.81
1947.....	2.82	3.77	55.40	82.29	3.65	4.74	75.00	101.38	4.54	5.46	80.55	102.59
1948.....	3.29	4.56	61.42	93.02	4.00	5.10	79.69	107.82	4.74	5.84	86.55	115.00
<b>Sask.—</b>												
1945.....	2.45	3.47	51.12	76.21	3.42	4.35	75.92	99.34	4.00	4.85	77.31	101.92
1946.....	2.45	3.56	49.87	75.72	3.43	4.49	77.24	102.06	4.71	5.69	82.99	111.13
1947.....	2.69	3.71	54.04	81.47	3.71	4.68	81.98	109.16	4.83	5.99	89.23	116.06
1948.....	3.09	4.24	62.68	93.70	4.02	5.17	86.99	117.84	4.98	6.11	91.85	120.72
<b>Alta.—</b>												
1945.....	2.65	3.51	58.22	82.47	3.20	4.14	74.76	98.33	4.04	4.94	77.19	111.00
1946.....	2.76	3.65	60.25	86.01	3.45	4.43	76.16	102.32	4.37	5.17	80.02	106.66
1947.....	3.09	4.02	63.31	89.67	3.82	4.85	82.21	109.66	4.45	5.60	84.69	113.57
1948.....	3.41	4.53	68.83	101.00	4.10	5.13	88.82	117.53	4.57	5.65	90.41	124.74
<b>B.C.—</b>												
1945.....	3.36	4.24	66.13	93.32	3.52	4.43	70.15	103.81	3.85	4.64	76.56	102.92
1946.....	3.56	4.50	70.59	100.50	3.80	4.74	79.60	104.05	4.42	5.26	82.63	105.56
1947.....	3.79	4.73	78.02	103.25	4.14	5.17	79.13	112.31	4.73	5.75	86.25	117.81
1948.....	4.37	5.54	84.54	120.91	4.58	5.93	92.60	127.11	4.87	5.97	93.93	130.50
<b>Totals—</b>												
1945.....	2.76	3.61	55.61	79.70	3.04	3.89	66.88	90.60	3.55	4.43	71.68	97.22
1946.....	2.93	3.84	57.24	82.23	3.25	4.15	71.36	96.27	4.04	4.95	75.28	100.62
1947.....	3.23	4.15	63.29	89.25	3.59	4.53	77.01	103.96	4.13	5.17	82.75	109.03
1948.....	3.62	4.66	70.00	100.09	3.93	4.89	83.26	113.07	4.40	5.44	86.79	116.67

## Section 8.—Workers Affected by Collective Agreements

Statistics on the number of workers affected by collective agreements in Canada are compiled by the Department of Labour. Table 40 gives figures for the principal industrial groups. It shows in the second column the number of workers affected by agreements extended under the Quebec Collective Agreement Act (see Subsection 1, p. 711). Any duplication of the numbers of workers covered by agreements under this Act and by other agreements is eliminated in the third column. Of the total number of workers affected by agreements, 92 p.c. are represented by international or national unions. A more detailed table in the *Labour Gazette*, March, 1949, as well as earlier studies of agreements in certain industries is available from the Department of Labour.

## 40.—Workers Affected by Collective Agreements, by Industries, 1947

Industrial Group	Agreements (Other Than Those in Column 2)	Agreements Extended Under Collective Agreement Act, Quebec	Total <sup>1</sup>
	No.	No.	No.
<b>Agriculture</b> .....	—	—	—
<b>Forestry, Fishing, Trapping</b> .....	42,029	—	42,029
<b>Mining (including milling), Quarrying and Oil Wells</b> ...	45,595	36	45,595
Coal mining.....	21,073	—	21,073
Metal mining.....	17,141	—	17,141
Other.....	7,381	36	7,381
<b>Manufacturing</b> .....	510,477	89,680	575,159
Vegetable foods.....	20,110	3,711	23,755
Other vegetable products.....	33,318	—	33,318
Animal foods.....	24,906	—	24,906
Leather and fur products.....	10,949	19,600	27,590
Textile products.....	69,409	32,598	87,560
Wood and paper products (including printing).....	106,344	16,303	119,445
Iron products.....	148,731	14,287	160,178
Non-ferrous metal products.....	61,705	455	62,160
Non-metallic mineral products.....	17,338	1,016	18,354
Chemical products.....	13,819	1,710	14,075
Miscellaneous products.....	3,818	—	3,818
<b>Electricity and Gas Production and Supply</b> .....	18,350	—	18,350
<b>Construction</b> .....	36,396	142,555	176,938
<b>Transportation and Communications</b> .....	241,025	4,898	241,983
Electric railways and local bus lines.....	20,334	—	20,334
Steam railways (including express).....	147,139	—	147,139
Water transportation (including stevedoring).....	31,287	4,898	32,242
Other.....	42,265	—	42,268
<b>Trade</b> .....	16,098	10,590	26,615
<b>Finance and Insurance</b> .....	—	—	—
<b>Service</b> .....	48,792	10,572	58,882
<b>Totals</b> .....	958,735	258,331	1,185,551

<sup>1</sup> Duplications in columns 1 and 2 are eliminated from these totals.

## Section 9.—Organized Labour in Canada

Information concerning trade unions is published in the Annual Report on Labour Organization in Canada issued by the Department of Labour.

At the close of 1948 there were 977,594 trade union members in Canada. The membership of the Trades and Labour Congress of Canada, as compiled from reports of unions to the Department of Labour, was 439,029 in 2,779 branches of affiliated and directly chartered unions; that of the Canadian Congress of Labour was 338,627 in 1,187 branches and local unions; that of the Canadian and Catholic Confederation of Labour, 99,370 in 428 branches; the independent railroad brotherhoods, 41,126 in 376 branches; and independent local unions, 4,346 in 39 branches.

In addition to the above figures, it is estimated that Newfoundland, which became a province of Canada on Mar. 31, 1949, has about 35,000 union members. Many of these have become affiliated with the Canadian labour congresses.

*Trades and Labour Congress of Canada.*—The Trades and Labour Congress of Canada is the oldest of the central labour organizations in Canada. After the disbanding of the Canadian Labour Union, which had drawn together local unions



in Ontario from 1873 to 1877, inclusive, there was no central organization until 1883 when the Trades and Labour Council of Toronto called a conference of local unions and plans were made to establish a national organization which was formally set up in 1886.

Affiliated with the Trades and Labour Congress at the present time are "international" trade unions, almost all of which are also affiliated with the American Federation of Labor, a number of Canadian or "national" unions and a number of directly chartered labour unions.

*Canadian Congress of Labour.*—This Congress was organized in September, 1940, when the All-Canadian Congress of Labour, formed in 1927, amended its constitution to permit the affiliation with the Congress of the Canadian branches of those international unions which, in the United States, are affiliated with the Congress of Industrial Organization. The Canadian Congress has also among its members a number of unions to which it has granted charters.

*Canadian and Catholic Confederation of Labour.*—National Catholic Unions in Canada date from 1901. In 1921 these local Catholic Syndicates, which are grouped in federations according to industry as far as possible, formed a central organization, the Canadian and Catholic Confederation of Labour.

#### 41.—Membership of Trade Unions in Canada, 1915-48

Year	Members	Year	Members	Year	Members
	No.		No.		No.
1915.....	143,343	1927.....	290,282	1939.....	358,967
1916.....	160,407	1928.....	300,602	1940.....	362,223
1917.....	204,630	1929.....	319,476	1941.....	461,681
1918.....	248,887	1930.....	322,449	1942.....	578,380
1919.....	378,047	1931.....	310,544	1943.....	664,533
1920.....	373,842	1932.....	283,096	1944.....	724,188
1921.....	313,320	1933.....	285,720	1945.....	711,117
1922.....	276,621	1934.....	281,274	1946.....	831,697
1923.....	278,092	1935.....	280,648	1947.....	912,124
1924.....	260,643	1936.....	322,746	1948.....	977,594
1925.....	271,064	1937.....	383,492		
1926.....	274,604	1938.....	381,645		

#### 42.—Distribution of Trade Union Members by Main Industrial Groups, with Percentage Changes, 1947 and 1948

Industry	1947		1948		Percentage Change 1948 from 1947
	Members	P.C. of Total	Members	P.C. of Total	
	No.		No.		
Mining and quarrying.....	49,036	5.4	48,784	5.0	-0.5
Metals.....	181,491	19.9	188,264	19.3	+3.7
Construction.....	71,629	7.9	91,632	9.4	+27.9
Light, heat and power.....	9,276	1.0	11,639	1.2	+25.5
Wood and wood products.....	77,806	8.5	95,390	9.8	+22.6
Printing and publishing.....	17,831	2.0	19,731	2.0	+10.7
Steam railway transportation.....	138,039	15.1	143,811	14.7	+4.2
Other transportation.....	59,536	6.5	62,203	6.4	+4.5
Services.....	110,737	12.1	116,169	11.9	+4.9
Clothing and footwear.....	54,769	6.0	50,301	5.1	-8.2
Textiles.....	44,811	4.9	51,165	5.2	+14.2
Foods.....	39,851	4.4	44,137	4.5	+10.8
All other industries.....	57,312	6.3	54,368	5.5	-5.1
<b>Totals.....</b>	<b>912,124</b>	<b>100.0</b>	<b>977,594</b>	<b>100.0</b>	<b>+7.2</b>

### 43.—Trade Unions Having 1,000 or More Members in Canada, as at Dec. 31, 1917 and 1918

Organization	Reported or Estimated Membership	
	1917	1918
<b>International Unions</b>		
	No.	No.
Automobile, Aircraft and Agricultural Implement Workers of America, International Union, United.....	51,352	53,000
Bakery and Confectionery Workers' International Union of America.....	2,476	2,907
Barbers, Hairdressers, Cosmetologists and Proprietors' International Union of America, Journeymen.....	1,066	1,113
Blacksmiths, Drop Forgers and Helpers, International Brotherhood of.....	1,000	1,166
Boilermakers, Iron Shipbuilders and Helpers of America, International Brotherhood of.....	5,000	6,119
Bookbinders, International Brotherhood of.....	2,343	2,759
Brewery, Flour, Cereal, Soft Drink and Distillery Workers of America, International Union of United.....	2,300	2,300
Bricklayers, Masons and Plasterers' International Union of America.....	1,929	2,531
Building Service Employees' International Union.....	3,500	3,500
Carpenters and Joiners of America, United Brotherhood of.....	24,738	36,381
Cement, Lime and Gypsum Workers' International Union, United.....	1	1,380
Chemical Workers' Union, International.....	6,543	6,023
Clothing Workers of America, Amalgamated.....	11,000	10,265
Commercial Telegraphers' Union, The.....	2,824	3,569
Distillery, Rectifying and Wine Workers' International Union of America.....	2,758	2,951
Electrical, Radio and Machine Workers of America, United.....	25,000	25,000
Electrical Workers, International Brotherhood of.....	10,528	12,861
Engineers, International Union of Operating.....	2,791	3,336
Firefighters, International Association of.....	4,850	6,000
Firemen and Oilers, International Brotherhood of.....	1,763	1,500
Fur and Leather Workers' Union of the United States and Canada, International.....	7,000	6,100
Garment Workers of America, United.....	1,350	1,350
Garment Workers' Union, International Ladies.....	11,985	13,025
Gas, Coke and Chemical Workers of America, United.....		2,315
Hatters, Cap and Millinery Workers' International Union, United.....	1,999	2,187
Hod Carriers, Building and Common Labourers' Union of America.....	1,288	2,201
Hotel and Restaurant Employees' and Bartenders' International Union.....	7,499	8,942
Industrial Workers of the World.....	2,000	2,000
Lithographers of America, Amalgamated.....	1,301	1,425
Locomotive Engineers, Brotherhood of.....	7,356	7,622
Locomotive Firemen and Enginemen, Brotherhood of.....	9,792	9,853
Longshoremen's Association, International.....	5,000	7,050
Longshoremen's and Warehousemen's Union, International.....	1,470	1,315
Machinists, International Association of.....	23,898	24,871
Maintenance-of-Way Employees, Brotherhood of.....	20,805	21,076
Metal Workers' International Association, Sheet.....	2,123	2,494
Mine, Mill and Smelter Workers, International Union of.....	28,507	25,000
Mine Workers of America, United.....	21,832	21,832
Moulders and Foundry Workers' Union of North America, International.....	7,374	8,139
Musicians of the United States and Canada, American Federation of.....	8,090	8,985
Office and Professional Workers of America, United.....	1,200	1,200
Office Employees' International Union.....	1,061	1,082
Packinghouse Workers of America, United.....	17,000	17,000
Painters, Decorators and Paperhangers of America, Brotherhood of.....	3,853	4,892
Paper Makers, International Brotherhood of.....	6,204	6,255
Plumbing and Pipe Fitting Industry of the United States and Canada, United Association of Journeymen and Apprentices of the.....	7,393	8,500
Printing Pressmen and Assistants' Union of North America, International.....	4,250	4,863
Pulp, Sulphite and Paper Mill Workers, International Brotherhood of.....	24,000	25,700
Railroad Telegraphers, The Order of.....	7,785	8,353
Railroad Trainmen, Brotherhood of.....	19,889	20,860
Railway and Motor Coach Employees of America, Amalgamated Association of Street, Electric.....	14,006	14,146
Railway and Steamship Clerks, Freight Handlers, Express and Station Employees, Brotherhood of.....	12,384	13,010
Railway Carmen of America, Brotherhood of.....	17,421	18,837
Railway Conductors of America, Order of.....	2,580	2,791
Retail Clerks' International Association.....	1,000	1,096
Rubber, Cork, Linoleum and Plastic Workers of America, United.....	9,538	9,682
Seafarers' International Union of North America.....	1,506	4,003
Stage Employees and Moving Picture Machine Operators of the United States and Canada, International Alliance of Theatrical.....	1,000	1,000
Steelworkers of America, United.....	40,000	48,000
Store Union, Retail, Wholesale and Department.....	10,000	5,000
Teamsters, Chauffeurs, Warehousemen and Helpers of America, International Brotherhood of.....	8,126	11,074

<sup>1</sup> This union was not operating, did not report for the year indicated, or had less than 1,000 members.

### 43.—Trade Unions having 1,000 or More Members in Canada, as at Dec. 31, 1947 and 1948—concluded

Organization	Reported or Estimated Membership	
	1947	1948
<b>International Unions—concluded</b>	<b>No.</b>	<b>No.</b>
Textile Workers of America, United.....	15,107	20,785
Textile Workers' Union of America.....	15,000	15,000
Tobacco Workers' International Union.....	5,227	5,877
Typographical Union, International.....	5,000	5,400
Upholsterers' International Union of North America.....	3,500	1,614
Woodworkers of America, International.....	21,348	24,425
<b>National Unions</b>		
Barbers and Hairdressers of the Province of Quebec, Federation of.....	1,000	1
Building and Construction Workers of Canada, Amalgamated.....	3,877	3,096
Building Trades and Construction Materials, National Federation of.....	11,937	11,929
Building Trade Workers of the Province of Quebec, Canadian Union of.....	1,217	1,708
Civic Employees, Canadian Brotherhood of.....	1,600	1
Civic Employees, Federation of.....	1,348	1,150
Civil Servants of Canada, Amalgamated.....	7,141	7,600
Civil Service Association of Alberta.....	3,333	4,124
Civil Service Association, The Manitoba.....	1,000	1,600
Civil Service Association, The Saskatchewan.....	3,344	3,538
Clothing Workers, National Federation of.....	3,770	3,975
Commerce, National Catholic Federation of Employees of.....	2,300	3,318
Customs and Excise Officers' Association.....	2,130	1
Electrical Workers, National Organization of Civic, Utility and.....	1,856	1,959
Engineers of Canada, National Union of Operating.....	2,618	2,817
Express Employees, Brotherhood of.....	3,121	3,415
Fishermen and Allied Workers' Union, United.....	1	7,722
Fruit and Vegetable Workers' Unions, Federation of.....	3,500	2,800
Furniture Workers, The National Federation of.....	1,278	1,275
Glove Workers, National Federation of.....	1,046	1
Government Employees' Association, British Columbia Provincial.....	4,446	5,800
Hosiery Workers, National Federation of Full Fashioned and Circular.....	2,550	2,853
Hospital Services and Religious Institutions, National Catholic Federation of.....	3,500	4,100
Letter Carriers, Federated Association of.....	3,250	3,132
Marine Engineers of Canada, National Association of.....	1,315	1,148
Marine Workers' Federation, Maritime.....	4,500	2,200
Maritime Federation of Canada, National (formerly Canadian Brotherhood of Ships Employees).....	3,434	3,814
Merchant Service Guild, Canadian.....	1,610	1,626
Metal Trades, The National Federation of.....	6,405	7,600
Mining Industry Employees, National Federation of (formerly the National Catholic Federation of Asbestos Employees of the Province of Quebec).....	4,000	4,500
Municipal Employees of Canada, National Federation of.....	4,350	4,144
One Big Union.....	12,328	12,247
Postal Employees' Association, The Canadian.....	6,050	6,500
Printing Trades of Canada, Federation of.....	2,450	2,800
Public Employees' Joint Council of (British Columbia Division).....	2,725	2,215
Pulp and Paper Workers, National Federation of.....	8,250	11,058
Railway Employees and Other Transport Workers, Canadian Brotherhood of.....	30,200	32,300
Railwaymen, Canadian Association of.....	3,655	3,372
Railwaymen, The National Union of.....	3,100	3,053
Railway Mail Clerks' Federation, Dominion.....	1,007	1,102
Seamen's Union, Canadian.....	11,200	6,000
Shipyard General Workers' Federation of British Columbia.....	3,000	1,299
Shoe and Leather Workers', National Union of.....	2,119	1,746
Shoe Workers of Canada, National Federation of Leather and.....	4,450	3,139
Teachers' Federation, British Columbia.....	3,898	4,424
Textile Workers, National Catholic Federation of.....	12,654	12,217
Wood Industry Workers of Canada, National Catholic Federation of.....	8,286	9,841
Woodworkers' Industrial Union of Canada.....	1	10,000

<sup>1</sup> This union was not operating, did not report for the year indicated, or had less than 1,000 members

## Section 10.—Strikes and Lockouts

Statistics of strikes and lockouts in Canada have been collected by the Federal Department of Labour since its establishment in 1900.

A complete review of strikes and lockouts during 1947 and 1948, with analyses of the statistics under various headings, will be found in supplements to the *Labour Gazette* for April, 1948, and April, 1949.



**Strikes and Lockouts in Recent Years.**—A marked improvement in industrial relations, as compared with the two preceding years, was shown during 1948 by statistics of disputes between workers and employers which resulted in work stoppages. During 1948, the loss of time due to strikes was little more than one-third of the loss in 1947 and about one-fifth of that in 1946, the peak year. The number of strikes and lockouts in 1948 and the number of workers involved were the lowest recorded for any year since 1939.

The demand for higher wages, to offset increases in the cost of living, was the central issue in two-thirds of the strikes during the year, causing about 85 p.c. of the total time loss. In 1947, about 90 p.c. of the time loss resulted from disputes over wage increases. Such demands were often linked with various questions involving unionism, working conditions, vacations with pay, etc. Since 1945, when most of the strike idleness resulted from questions involving unionism, the question of union recognition has not been an issue. There were no sympathetic strikes recorded during 1948. The great variety and complexity of causes leading to strikes present difficulties in classification for statistical purposes as there are usually several points in dispute in each case.

In the manufacturing group of industries, which has the largest working force, time loss resulting from strikes in 1948 was greater than in all other groups combined. In 1947 the greatest time loss was in the mining group. There were two important strikes in the coal-mining industry during 1948 and nine lesser stoppages. In all mining, the time loss was about one-third of the total for the year. Based on the number of wage and salary workers in Canada, the total amount of time lost was about 0.1 p.c. of the estimated working time. In 1947 it was about 0.25 p.c., and in 1946 about 0.5 p.c.

Settlement of 40 p.c. of the strikes in 1948 was brought about by direct negotiations, approximately the same proportion as in the previous year. Negotiations played an important part in settlement of differences in many other cases, following reference to conciliation boards, labour courts, etc. In 1948, about 35 p.c. of the stoppages were settled by conciliation, reference to labour boards, commissioners, and arbitration, about the same percentage as in 1947.

#### 44.—Strikes and Lockouts, 1939-48

NOTE.—Figures for years prior to 1939 will be found in corresponding tables in previous editions of the Year Book.

Year	Coal Mining			Industries Other Than Coal Mining			All Industries			
	Strikes and Lock- outs in Exist- ence During Year	Workers Involved	Time Loss in Man- Working Days	Strikes and Lock- outs in Exist- ence During Year	Workers Involved	Time Loss in Man- Working Days	Strikes and Lock- outs in Exist- ence During Year	Strikes and Lock- outs Begin- ning in Year	Workers Involved	Time Loss in Man- Working Days
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1939.....	48	31,102	111,274	74	9,936	113,314	122	120	41,038	224,588
1940.....	65	31,223	68,734	103	29,396	197,584	168	166	60,619	266,318
1941.....	45	38,136	109,069	186	48,955	324,845	231	229	87,091	433,914
1942.....	53	19,670	66,318	301	94,246	383,884	354	352	113,916	450,202
1943.....	111	59,017	204,980	291	159,387	836,218	402	401	218,404	1,041,198
1944.....	46	11,180	28,507	153	64,110	461,632	199	195	75,290	490,139
1945.....	39	27,422	183,102	158	68,646	1,274,318	197	196	96,068	1,457,420
1946.....	42	21,414	43,854	186	118,060	4,472,539	228	225	139,474	4,516,393
1947.....	11	45,467	1,314,334	225	58,653	1,083,006	236	232	104,120	2,397,340
1948.....	11	14,695	303,639	143	28,125	582,154	154	147	42,820	885,793

## 45.—Strikes and Lockouts, by Industries, 1947 and 1948

Industry	1947					1948				
	No. of Strikes and Lockouts	Workers Involved		Time Loss		No. of Strikes and Lockouts	Workers Involved		Time Loss	
		No.	Per-cent-age	Man-Working Days	Per-cent-age		No.	Per-cent-age	Man-Working Days	Per-cent-age
<b>Agriculture</b> .....	1	..	..	..	..	1	..	..	..	..
<b>Logging</b> .....	1	50	--	150	--	6	1,495	3.5	9,750	1.1
<b>Fishing and Trapping</b> ..	2	750	0.7	31,000	1.3	1	..	..	..	..
<b>Mining, etc<sup>2</sup></b> .....	16	47,266	45.4	1,359,777	56.7	12	16,695	39.0	308,989	34.9
<b>Manufacturing</b> .....	133	41,357	39.7	877,077	36.4	79	18,500	43.2	487,532	55.0
Vegetable foods, etc.....	10	939	0.9	16,279	0.7	3	231	0.5	2,135	0.2
Tobacco and liquors.....	2	50	--	1,053	--	2	173	0.4	760	0.1
Rubber and its products..	1	560	0.6	300	--	3	330	0.8	1,479	0.2
Animal foods.....	3	13,928	13.4	465,253	19.4	1	200	0.5	250	--
Boots and shoes (leather)	5	1,969	1.9	57,259	2.4	1	..	..	..	..
Fur, leather and other animal products.....	7	1,624	1.6	20,430	0.9	1	44	0.1	1,400	0.2
Textiles, clothing, etc....	16	10,111	9.7	103,253	4.3	14	3,754	8.8	133,298	15.0
Pulp, paper and paper products.....	1	250	0.2	21,500	0.9	1	..	..	..	..
Printing and publishing..	3	1,183	1.1	12,013	0.5	2	859	2.0	7,645	0.9
Miscellaneous wood products.....	25	2,594	2.5	46,098	1.9	10	1,791	4.2	86,186	9.7
Metal products.....	42	6,055	5.8	114,943	4.8	37	10,735	25.1	251,984	28.4
Shipbuilding.....	4	707	0.7	3,598	0.2	1	..	..	..	..
Non-metallic minerals, chemicals, etc.....	13	1,282	1.2	14,733	0.6	5	312	0.7	2,315	0.3
Miscellaneous products...	1	105	0.1	365	--	1	71	0.1	80	--
<b>Construction</b> .....	33	6,091	5.9	44,362	1.8	19	3,337	7.8	39,666	4.5
Building and structure...	32	6,057	5.9	44,262	1.8	18	3,322	7.8	39,546	4.5
Railway.....	1	..	..	..	..	1	..	..	..	..
Bridge <sup>3</sup> .....	1	..	..	..	..	1	..	..	..	..
Highway.....	1	..	..	..	..	1	15	--	120	--
Canal, harbour, water-way.....	1	34	--	100	--	1	..	..	..	..
Miscellaneous.....	1	..	..	..	..	1	..	..	..	..
<b>Transportation and Public Utilities</b> .....	23	4,434	4.3	74,271	3.1	14	1,312	3.0	26,176	3.0
Steam railways.....	1	..	..	..	..	1	12	--	48	--
Electric railways and local bus lines.....	5	3,106	3.0	64,971	2.7	1	66	0.1	300	--
Other local and highway transport.....	5	201	0.2	1,855	0.1	6	357	0.8	3,083	0.4
Water transport.....	12	1,118	1.1	7,436	0.3	6	877	2.1	22,745	2.6
Air transport.....	1	..	..	..	..	1	..	..	..	..
Telegraph and telephone	1	..	..	..	..	1	..	..	..	..
Electricity and gas.....	1	9	--	9	--	1	..	..	..	..
Miscellaneous.....	1	..	..	..	..	1	..	..	..	..
<b>Trade</b> .....	8	880	0.8	1,231	0.1	6	239	0.6	2,890	0.3
<b>Finance</b> .....	1	..	..	..	..	1	110	0.3	1,535	0.2
<b>Service</b> .....	26	3,292	3.2	9,472	0.4	17	1,132	2.6	9,255	1.0
Public administration <sup>4</sup> ..	6	2,659	2.6	1,568	0.1	4	79	0.1	160	--
Recreation.....	1	50	--	200	--	1	..	..	..	..
Business and personal...	13	583	0.6	7,704	0.3	13	1,053	2.5	9,095	1.0
<b>Totals</b> .....	236	104,120	100.0	2,397,340	100.0	154	42,820	100.0	885,793	100.0

<sup>1</sup> None reported.<sup>2</sup> Includes non-ferrous metal smelting.<sup>3</sup> Includes erection of all large

bridges.

<sup>4</sup> Includes water service.

## Section 11.—Canada and the International Labour Organization

The Department of Labour is the officially designated liaison agency between the Canadian Government and the International Labour Organization. The I.L.O. was established in 1919 in association with the League of Nations under the Treaties of Peace with the object of improving labour and social conditions throughout the world by international agreement and legislative action. Under an agreement approved by the General Conference of the International Labour Organization at its 29th Session at Montreal, Que., on Oct. 2, 1946, and by the United Nations General Assembly on Dec. 14, 1946, the Organization became a specialized agency of the United Nations, although retaining its autonomy.

An association of 60 nations, financed by their governments and controlled by representatives of those governments and of their organized employers and workers, the Organization comprises: (1) the General Conference of representatives of the Member States; (2) the International Labour Office; and (3) the Governing Body of the Office. The Organization's structure and field of activity have been considerably extended since 1945 by the establishment of eight tripartite committees to deal with problems of major world industries.

The Conference in normal times meets at least once a year, and is composed of four delegates from each Member State, two representing the government and two representing employers and workers, respectively. Decisions of the Conference are in the form of Conventions or Recommendations. The former, when given legislative effect and ratified by Member States, are legally binding on them. The enforcement of Conventions within such countries is a matter for annual consideration by the Conference. The I.L.O. Constitution requires, however, that every Convention must be brought before the competent authority or authorities for legislative or other action. In Canada, the competent authorities in respect to the subject matter of most of the Conventions and Recommendations are the Provincial Legislatures. Amendments to the Constitution adopted by the Conference in 1946 included new provisions concerning the obligations imposed on federal countries with respect to the manner of dealing with Conventions and Recommendations when ratified by two-thirds of the Member States. These changes in procedure are expected to facilitate the adoption of Conventions and Recommendations by the constituent States or provinces of federal countries.

The International Labour Office acts as the permanent secretariat of the Organization and as an information centre and publishing house with respect to all questions on industry and labour.

The Governing Body consists of 32 persons, 16 government representatives, eight employers' and eight workers' representatives, of whom all but the representatives of the eight States of chief industrial importance, while holding permanent seats, are elected triennially by the Conference. The Governing Body, which usually meets quarterly, has general supervision of the International Labour Office, frames its budget and fixes the agenda of the Conference when the Conference



itself does not do so. Four sessions were held during 1948—in March, June, July and December, the first and fourth at Geneva, Switzerland, and the two others at San Francisco, California.

There have been 32 sessions of the Conference at which 90 draft Conventions and 83 Recommendations have been adopted covering a wide range of subjects: freedom of association; hours of work; weekly rest; holidays; minimum wage for employment; night-work of women and young persons; health and safety; workmen's compensation; seamen's conditions; insurance against unemployment, sickness, old age and death; colonial labour problems; protection of migrant workers; and many other aspects of the protection of workers' rights and interests. There have been 1,012 ratifications of these Conventions.

Eight International Labour Conventions have been given legislative effect by the Federal Parliament and have been ratified by the Government, six relating to seamen, one to dockers and one to statistics.

During 1948 the International Labour Conference held its 31st Session at San Francisco; three of the eight Industrial Committees of the I.L.O. held sessions (Chemicals, Textiles and Petroleum); a Technical Tripartite Conference on Safety Provisions in Factories met to draw up a model code for factories and a preliminary meeting of Technical Experts on Safety in Coal Mines took place. Canada was represented at all these meetings, full accounts of which are to be found in the *Labour Gazette*.

# CHAPTER XX.—TRANSPORTATION AND COMMUNICATIONS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Canada more than 3,000 miles in length from east to west, with the main topographic barriers running in a north-south direction, and a relatively small population of 13,549,000 (1949 estimate) thinly distributed along the southern strip of this vast area, presents unusual difficulties from the standpoint of transportation. Different parts of the country are shut off from each other by Cabot Strait, the Strait of Belle Isle, by areas of rough, rocky forest terrain, such as the region lying between New Brunswick and Quebec, the areas north of Lakes Huron and Superior, dividing the industrial region of Ontario and Quebec from the agricultural areas of the prairies, and the barriers interposed by the mountains of British Columbia. To such a country with a population so dispersed and producing for export, as well as for consumption in distant portions of the country itself, cheap transportation is a necessity of life.

In order to appraise the value of each of the agencies of transportation, this Chapter of the Year Book, after treating of government control over agencies of transportation and communication in Part I, deals with the four main agencies, namely, carriers by rail, road, water and air, in Parts II, III, IV and V, respectively. In each Part the arrangement is intended to show; (1) the plant, equipment and facilities available; (2) the cost to the Canadian people; and (3) the traffic carried or services performed, in so far as statistics are available for each agency.

Scarcely less important than transportation from the social and economic viewpoints, is the development of communications in a country so vast and with population centres so scattered. The Post Office has been a great factor in promoting solidarity among the people and this same objective is being further aided by radio. Telegraphs and telephones have done much to lessen distances and make for closer relationships—the rural telephone being of particular social and economic benefit in country districts. The press, assisted by cheap telegraph and cable rates, and by low second-class mail rates to all parts of the country, has been helpful in developing national sentiment. These means of communication are dealt with in Parts VI, VII, VIII and IX.

## **PART I.—GOVERNMENT CONTROL OVER AGENCIES OF TRANSPORTATION AND COMMUNICATION**

### **Section 1.—Government Control Over Agencies of Transportation\***

Carriers by rail, road, water and air are, or should be, inter-related parts of an integral whole where each agency has its place in the efficient provision of necessary transportation. The Federal Department of Transport was organized on Nov. 2, 1936, under authority of c. 34 of the Statutes of 1936, to unify in one Department the control and supervision of railways, canals, harbours, marine and shipping, civil aviation, radio and meteorology.

The business of transportation and communications is, generally speaking, a 'natural monopoly', i.e., a type of enterprise in which service can be more efficiently and economically rendered to the public where one or a few concerns control a particular type of service throughout the country. For this reason there has been a strong tendency toward consolidation and amalgamation over the past half century. The outstanding example of these consolidations in Canada in recent years is the concentration of control of the railways of the country in the hands of the Canadian Pacific Railway Company and the Canadian National Railways.

Such control may bring with it elements of monopoly and possible overcharge, and it has been deemed advisable in Canada, as in other countries, to set up authorities to control the rates to be charged and other conditions under which services to the public are to be rendered by common carriers. This control, so far as the railways under charter or within the jurisdiction of the Federal Government are concerned, is now in the hands of the Board of Transport Commissioners. From time to time the regulatory authority of the Commission has been extended to a limited extent to other utilities (see under "Air Transport Board", pp. 729-730).

Besides the Board of Transport Commissioners, there exist, in several of the provinces, bodies that undertake among their duties the supervision and control of local public utilities operating under the jurisdiction of the provinces, and the regulation of their rates for service. Among these are the Ontario Department of Municipal Affairs (formerly the Railway and Municipal Board of Ontario, estab-

\* This material has been compiled in co-operation with the Board of Transport Commissioners, the Air Transport Board and the Department of Transport.



lished in 1906), the Quebec Commission of Public Utilities established in 1909, the Nova Scotia Board of Commissioners of Public Utilities and the Public Utilities Commission of Manitoba. In the three most westerly provinces these same duties are performed by provincial Departments of Railways.

**The Board of Transport Commissioners for Canada.**—An explanation of the situation that led to the introduction of railway regulation by commission in Canada, as well as other information relating to the organization of the Board, procedure, judgments, etc., is given at pp. 633-634 of the 1940 Year Book.

*Powers of the Board.*—With regard to transport by rail, these powers cover matters relating to the location, construction and operation of railways. The most important of these has to do with rate regulation. Passenger rates are divided into standard and special; freight rates into standard, special and competitive. Standard rates are maximum rates and the only ones that must be approved by the Board before they are applied. Special and competitive rates, being less than maximum rates, may be applied by railways without the Board's approval, provided that a change of rates has been advertised. Important rate adjustments, however, usually come to the notice of the Commission, for a changed rate alters the extent of the territory in which a shipper can compete and on this account he is likely to appeal the case to the Commission.

By an amendment to the Railway Act, the regulation of telephone, telegraph and express rates was given to the Commission, but with narrower powers than were given to it in dealing with railways. Under the Transport Act, 1938, and proclamations of the Governor General in Council made thereunder, the Board has power to issue licences to ships engaged in the transportation of passengers or goods on the Great Lakes, the Mackenzie River and the Yukon River. The Board is required to perform the functions vested in it under the Transport Act and the Railway Act with the object of co-ordinating and harmonizing the operations of all carriers engaged in transport by railways and ships. The Board may require every applicant for a licence under the Transport Act to establish public convenience and necessity to its satisfaction and take into consideration the financial responsibility of a licensee or applicant. The Board may, in the licence, state the ports between which the ships named therein may carry goods or passengers and the schedule of services to be maintained; every standard tariff and every amendment and supplement thereto requires the approval of the Board before it becomes effective.

In 1948 legislation was enacted giving the Board of Transport Commissioners jurisdiction over interprovincial and international pipe lines.

**The Air Transport Board.**—The Air Transport Board was established in September, 1944, as a result of an amendment to the Aeronautics Act (8 Geo. VI, c. 28). The Board's main function is the economic regulation of commercial air services in Canada, which includes the issue of licences to all such services and the subsequent regulation of the licensees in respect of tariffs and schedules, public liability, and standards of service to the public. The latest regulations respecting commercial air services made by the Air Transport Board, under the Aeronautics

Act, were approved by Order in Council P.C. 972 of Mar. 25, 1947, and became effective on Apr. 9, 1947. These Regulations, which were made pursuant to amendments to the Aeronautics Act of Dec. 15, 1945 (9 and 10 Geo. VI, c. 9), deal with the classifications of air carriers, applications for licences, accounts records and reports, traffic, tolls and tariffs, and other related matters. Detailed regulatory instructions are issued by the Board in the form of directives, which are made consistent with the Regulations. In addition, the Board advises the Minister in the exercise of his duties and powers under the Act in all matters relating to civil aviation.

The Board takes an active part in the proceedings of the International Civil Aviation Organization, a member of its staff being the Canadian Council Member.

The Board consists of three members, including the chairman, and the staff comprises a Secretary's Branch, which includes the Administration and Licensing Divisions, a Legal Adviser, who is the Chief Legal Adviser to the Canadian Government on all matters of domestic and international air law, an Examiner, who conducts public hearings by order of the Board, a Traffic Branch, and a Research Aeronautical Engineering Branch.

Financial and operating statistics are collected under the authority of the Board's Regulations by the Bureau of Transportation Economics which was established in 1947 under the administration of the Board of Transport Commissioners and serves that Board as well as the Air Transport Board.

Up to Dec. 31, 1948, the Board had issued 31 licences for domestic scheduled commercial air services, 9 licences for Canadian international air services, 166 licences for domestic non-scheduled air services, and 28 licences to domestic commercial air carriers not involved in transport of passengers and goods. In addition, 12 licences had been issued to foreign scheduled air carriers, and 169 licences to foreign non-scheduled air carriers. The following is a statement of the traffic revenue miles flown during the year 1948:—

<i>Service</i>	<i>Total Route Miles</i>	<i>Passenger Miles</i>	<i>Ton Miles</i>	<i>Mail Ton Miles</i>
	No.	No.	No.	No.
Domestic scheduled air services.....	19,147	273,275,095	3,523,471	* 2,603,294
Canadian international air services.....	2,190	43,069,728	264,055	57,012
Domestic non-scheduled air services....	..	12,407,426	1,325,117	—

## Section 2.—Government Control Over Agencies of Communication\*

The development and control of radio-communication in Canada from the beginning of the century is outlined at pp. 644-646 of the 1945 Year Book.

The present phase of national radio broadcasting in Canada was entered upon in 1936, when, with the passage of the Canadian Broadcasting Act, 1936, the Canadian Broadcasting Corporation replaced the Canadian Radio Broadcasting Commission (see p. 817). The new Act gave the Corporation much wider powers in the operation of the system, and was modelled very largely along the lines of the Act governing the British Broadcasting Corporation. The technical control of all

\* Revised under direction of the Deputy Minister, Department of Transport.

broadcasting stations reverted to the Minister of Transport, who was also empowered to make regulations for the control of any equipment liable to cause interference with radio reception.

Under the Radio Act, 1938, radio stations including broadcasting stations may be established only under, and in accordance with, licences granted by the Minister of Transport, and, with the exception of those matters covered by the Canadian Broadcasting Act, 1936, radio-communications are regulated under the Radio Act, 1938, and Regulations. Licences for radio stations may be issued only to British subjects or to companies or corporations created or incorporated under the laws of Canada or any of the provinces thereof or any country of the Commonwealth.

In addition to the requirements of these Acts and Regulations, all radio-communication matters are administered in accordance with the provisions of the International Telecommunication Convention and Radio Regulations annexed thereto, as well as such Regional Agreements as the Inter-American Telecommunications Convention and Inter-American Agreement, and the North American Regional Broadcasting Agreement.

By Order in Council P.C. 2526, dated June 8, 1948, responsibility for telegraph and telephone services formerly operated by the Federal Department of Public Works was transferred to the Minister of Transport. The general object of these services is to furnish wire communications for outlying and sparsely settled districts where commercial companies do not enter into the field and where the population must receive adequate communication services in the public interest.

Landline telegraph and telephone tariffs and tolls, charged by companies incorporated by the Federal Government, are regulated by the Board of Transport Commissioners under the provisions of the Railway Act.

Tariffs and tolls charged to the public by individuals or companies, for radio telephone or telegraph communications within Canada, are likewise regulated by the Board of Transport Commissioners, under the provisions of the Railway Act, and the Regulations made under the Radio Act, 1938.

## PART II.—RAILWAYS\*

The treatment of rail transportation is divided into three Sections dealing respectively, with steam railways, electric railways and express companies.

### Section 1.—Steam Railways

The steam railway is the most important transportation agency from the standpoint of investment and of traffic handled and the statistical field is more completely covered for this form of transportation than for any other.

\* Revised in the Transportation Division, Dominion Bureau of Statistics. More detailed information is given in the annual reports of the Division. Certain of the financial statistics are compiled in co-operation with the Department of Transport.



**Historical.**—A brief historical sketch of the development of steam railways in Canada is given at pp. 635-638 of the 1940 Year Book. Other details are given at pp. 616-623 of the 1922-23 Year Book, at pp. 601-603 of the 1926 Year Book and at pp. 694-698 of the 1934-35 Year Book. An article at pp. 648-651 of the 1945 edition deals with the wartime role of the steam railways of Canada.

### Subsection 1.—Mileage and Equipment

Although construction was begun in 1835 on the first railway in Canada—the short link of 16 miles between Laprairie and St. Johns, Que.—there were only 66 miles of railway in operation by 1850. The first great period of construction was in the 1850's when the Grand Trunk and Great Western Railways, as well as numerous smaller lines, were built. The building of the Intercolonial and the Canadian Pacific Railways contributed to another period of rapid expansion in the 1870's and 1880's. In the last period of extensive railway building from 1900 to 1917, the Grand Trunk Pacific, National Transcontinental and Canadian Northern Railways were constructed.

During the past decade, there has been a tendency for railway mileages to decline slightly because of the abandonment of unprofitable lines. Of the 42,248 miles of single track operated in 1948, 21,467 were Canadian National lines.

#### 1.—Record of Steam-Railway Mileage, 1900-48

NOTE.—Corresponding figures of total mileage of single track for the years 1835 to 1899 are given at p. 546 of the 1941 Year Book.

Total Mileage (Single Track)						Mileage, by Provinces					
Year	Miles in Operation	Year	Miles in Operation	Year	Miles in Operation	Type of Track and Province	1931	1936	1941	1947	1948
	No.		No.		No.		No.	No.	No.	No.	No.
1900....	17,657	1917...	38,369	1933...	42,336	Single—					
1901....	18,140	1918...	38,252	1934...	42,270	P.E.I.....	286	286	286	286	286
1902....	18,714	1919 <sup>1</sup> ...	38,329	1935...	42,916	N.S.....	1,418	1,397	1,396	1,396	1,396
1903....	18,988	1919 <sup>2</sup> ...	38,495	1936...	42,552	N.B.....	1,934	1,871	1,836	1,835	1,835
1904....	19,431	1920...	38,805	1937...	42,727	Que.....	4,926	4,777	4,789	4,765	4,765
1905....	20,487	1921...	39,191	1938...	42,742	Ont.....	10,905	10,746	10,476	10,464	10,464
1906....	21,423	1922...	39,358	1939...	42,637	Man.....	4,419	4,860	4,854	4,836	4,836
1907....	22,446	1923...	39,654	1940...	42,565	Sask.....	8,268	8,624	8,777	8,783	8,738
1908....	22,966	1924...	40,059	1941...	42,441	Alta.....	5,630	5,687	5,747	5,674	5,643
1909....	24,104	1925...	40,350	1942...	42,339	B.C.....	4,097	3,907	3,883	3,886	3,888
1910....	24,731	1926...	40,350	1943...	42,346	Yukon....	58	58	58	58	58
1911....	25,400	1927...	40,570	1944...	42,336	In U.S.A....	339	339	339	339	339
1912....	26,840	1928...	41,022	1945...	42,352	Totals.....	42,280	42,552	42,441	42,322	42,248
1913....	29,304	1929...	41,380	1946...	42,335	Second.....	2,688	2,500	2,499	2,489	2,495
1914....	30,795	1930...	42,047	1947...	42,322	Industrial....	1,606	1,401	1,551	1,908	1,892
1915....	34,882	1931...	42,280	1948...	42,248	Yard and sidings	10,277	10,239	10,210	10,332	10,370
1916....	36,985	1932...	42,409			<b>Grand Totals</b>	<b>56,851</b>	<b>56,692</b>	<b>56,701</b>	<b>57,051</b>	<b>57,005</b>

<sup>1</sup> As at June 30 for this and previous years.

<sup>2</sup> As at Dec. 31 for this and later years.

**Rolling-Stock.**—The figures in Table 2 may be supplemented by the statement that between 1920 and 1948, the average capacity of box cars increased from 34,779 tons to 43,317 tons, of flat cars from 33,459 to 43,182 tons, of coal cars from 43,404 tons to 58,361 tons, and of all freight cars from 35,141 tons to 44,997 tons. The average tractive power of the locomotive increased from 31,112 lb. in 1920 to 42,052 lb. in 1948.

## 2.—Rolling-Stock of Steam Railways, as at Dec. 31, 1942-48

Type	1942	1943	1944	1945	1946	1947	1948
	No.	No.	No.	No.	No.	No.	No.
<b>Locomotives</b>							
Passenger.....	1,197	1,213	893	933	945	943	982
Freight.....	2,351	2,376	2,640	2,606	2,599	2,555	2,540
Switching.....	726	731	836	843	843	866	902
Electric.....	34	34	34	34	34	33	34
Compression ignition oil electric.....	7	10	13	15	29	54	62
<b>Totals, Locomotives.....</b>	<b>4,315</b>	<b>4,364</b>	<b>4,416</b>	<b>4,431</b>	<b>4,450</b>	<b>4,451</b>	<b>4,520</b>
<b>Passenger Cars</b>							
First class.....	1,973	2,007	1,984	1,965	1,947	1,923	1,953
Second class.....	259	273	268	263	230	183	173
Combination.....	364	366	364	356	354	361	343
Immigrant.....	385	395	380	379	378	355	353
Dining.....	192	192	196	196	197	185	185
Parlour.....	205	156	142	142	160	173	175
Sleeping <sup>1</sup> .....	880	783	789	787	770	762	758
Baggage, express and postal.....	1,576	1,656	1,658	1,645	1,634	1,619	1,677
Motor-cars.....	75	73	71	68	64	64	60
Other.....	433 <sup>2</sup>	418 <sup>2</sup>	411 <sup>2</sup>	410 <sup>2</sup>	407	405	406
<b>Totals, Passenger Cars<sup>1</sup>.....</b>	<b>6,342</b>	<b>6,319</b>	<b>6,263</b>	<b>6,211</b>	<b>6,141</b>	<b>6,030</b>	<b>6,063</b>
<b>Freight Cars</b>							
Box.....	110,916	112,815	117,068	117,886	116,809	119,589	123,539
Flat.....	11,998	10,870	10,953	10,892	10,868	10,453	10,314
Stock.....	6,029	6,510	6,471	6,437	6,382	6,277	6,115
Coal.....	18,106	19,900	21,104	21,340	20,938	21,618	23,431
Tank.....	362	348	348	343	358	354	352
Refrigerator.....	6,372	6,424	6,587	6,372	6,467	6,673	7,240
Other.....	1,528	1,523	1,536	1,499	1,523	1,487	1,382
<b>Totals, Freight Cars.....</b>	<b>155,311</b>	<b>158,390</b>	<b>164,067</b>	<b>164,769</b>	<b>163,345</b>	<b>166,451</b>	<b>172,373</b>

<sup>1</sup> Includes Pullman Company cars in Canadian service.<sup>2</sup> Includes 3 auto-railers.

## Subsection 2.—Finances

The tables in this Subsection deal with capital liability, capital investment, earnings, operating expenses, employees and their earnings, and Government aid to steam railways. However, the presentation of the financial statistics of railways in Canada would not be complete without some detailed consideration of the finances of the Government-owned railways. This is given in the latter part of the Subsection. Further statistics of revenue are included in Table 9, where they are shown in relation to traffic. Statistics of individual railways, covering single-track mileage, capital, earnings and operating expenses, may be found in the annual report "Statistics of Steam Railways of Canada", published by the Dominion Bureau of Statistics.

**Capital Liability.**—The great increase after 1922 in the capital liability of the steam railways of Canada is due to the inclusion of all Government loans to railways and investment in road and equipment of Government railways as part of the capital liability of the railways. The reduction after 1937, brought about by the Canadian National Capital Revision Act (c. 22, 1937), is explained at p. 644 of the 1939 Year Book.

### 3.—Capital Liability<sup>1</sup> of Steam Railways, 1929-48

NOTE.—Figures for the years 1876 to 1925, inclusive, are given at p. 649 of the 1927-28 Year Book and those for 1926-28 at p. 662 of the 1947 edition.

Year	Stocks	Funded Debt	Total	Year	Stocks	Funded Debt	Total
	\$	\$	\$		\$	\$	\$
1929...	1,405,622,070	2,497,054,907	3,902,676,977	1939...	1,834,329,209	1,533,373,521	3,367,702,730
1930...	1,431,324,003	2,595,145,308	4,026,469,311	1940...	1,762,473,489	1,617,561,683	3,380,035,172
1931...	1,438,050,759	2,793,971,329	4,232,022,088	1941...	1,697,545,699	1,699,942,865	3,397,488,564
1932...	1,437,489,430	2,934,182,332	4,371,671,762	1942...	1,578,254,765	1,793,579,270	3,371,834,035
1933...	1,438,834,552	2,951,690,468	4,390,525,020	1943...	1,614,936,131	1,741,664,036	3,356,600,167
1934...	1,437,334,152	2,966,505,594	4,403,839,746	1944...	1,636,064,822	1,707,801,676	3,343,866,498
1935...	1,433,849,530	3,026,414,779	4,460,264,309	1945...	1,631,973,055	1,701,786,899	3,333,759,954
1936...	1,425,193,791	3,062,411,720	4,487,605,511	1946...	1,624,753,709	1,665,844,138	3,290,597,847
1937...	1,839,619,361	1,534,450,789	3,374,070,150	1947...	1,623,607,219	1,685,010,672	3,308,617,891
1938...	1,836,882,650	1,568,269,672	3,405,152,322	1948...	1,578,057,474	1,672,282,030	3,250,339,504

<sup>1</sup> Does not include Canadian railway capital owned by Canadian railways.

**Capital Investment.**—The decrease in capital liability during 1948 of \$58,278,387 from 1947 as shown in Table 3 compares with an increase in investments in road and equipment of \$188,038,856 as shown in Table 4 and reflects improvements made during the year. The investment account in recent years has been affected by write-offs for lines abandoned, transfers of property to other Government Departments, etc., as well as by higher gains in earnings during the war years.

### 4.—Capital Invested in Road and Equipment of Steam Railways, 1943-48

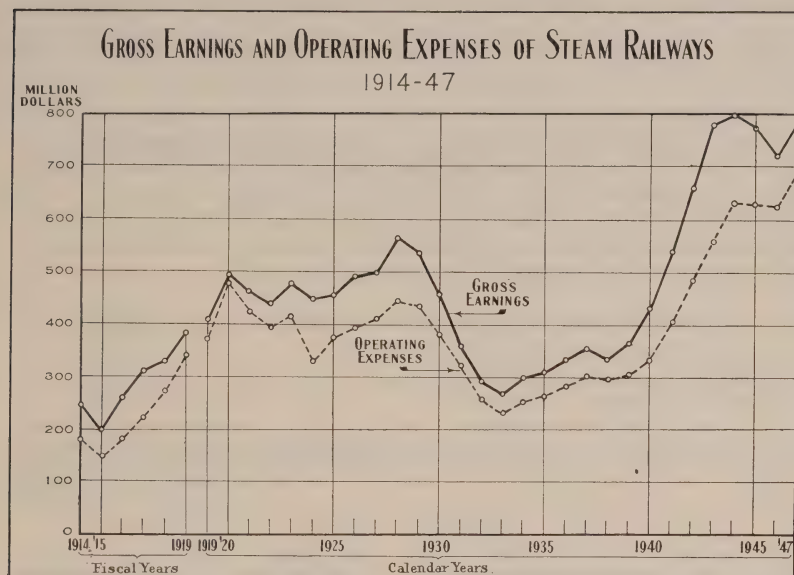
Investment	1943	1944	1945	1946	1947	1948
	\$	\$	\$	\$	\$	\$
New Lines—						
Road.....	71,838	Cr. 4,452	2,793,751	3,376,385	1,071,411	1,415,132
Equipment.....	7,935	Cr. 35,570	85,985	136,196	465,476	66,694
General.....	1,688	252	—	—	—	—
Totals.....	81,461	Cr. 39,770	2,879,736	3,512,581	1,536,887	1,481,826
Additions and Betterments—						
Road.....	Cr. 8,895,492	11,147,929	3,224,843	20,639,010	14,774,509	21,725,599
Equipment.....	28,214,476	44,239,856	20,581,957	14,582,489	39,848,412	85,736,595
General.....	418,705	2,081	Cr. 24,644	123,029	48,404	Cr. 59,483
Undistributed.	—	—	450	Cr. 2,072	Cr. 450	Cr. 2,984
Totals.....	19,737,689	55,389,866	23,782,606	35,342,456	54,670,875	107,399,727
Undistributed <sup>1</sup> .	Cr. 4,776,307	1,332,965	Cr. 3,194,164	Cr. 5,883,298	Cr. 871,376	79,157,303
<b>Totals, Investments as at Dec. 31.....</b>	<b>3,242,589,933</b>	<b>3,299,272,994</b>	<b>3,322,741,172</b>	<b>3,355,712,911</b>	<b>3,411,979,297</b>	<b>3,600,018,153</b>

<sup>1</sup> Details of this item are given in the annual report "Statistics of Steam Railways of Canada" issued by the Transportation Division of the Dominion Bureau of Statistics.

**Earnings and Expenses.**—The operating ratio, or ratio of expenses to revenues, of Canadian railways increased from around 70 p.c. to over 90 p.c. between 1917 and 1920, and remained high thereafter. The United States Government took over the operation of the United States railways and increased the rates of pay of the railway employees when that country entered the First World War. The Canadian railways were also obliged to make corresponding increases and these have been the chief factor in increased operating ratio. Declining revenues without corresponding



reductions in expenses during the depression period also maintained the high ratio. The period from 1938 to 1943 showed a sharp decline in this ratio, due primarily to the greatly increased freight traffic occasioned by the Second World War and a subsequent acceleration in gross earnings. A steadily rising trend has been in evidence since 1943 caused by higher costs for materials and labour.



### 5.—Earnings and Operating Expenses of Steam Railways, 1939-48

NOTE.—Gross earnings and operating expenses for the years 1875 to 1914 are given at p. 434 of the 1916-17 Year Book; those for 1915-25 at p. 550 of the 1941 Year Book; and for 1926-38 at p. 585 of the 1942 Year Book.

Year	Gross Earnings	Operating Expenses	Ratio of Expenses to Receipts	Per Mile of Line			Freight Train Revenue per Freight Train Mile	Passenger Train Revenue per Passenger Train Mile
				Gross Earnings	Operating Expenses	Net Earnings		
	\$	\$	p. c.	\$	\$	\$	\$	\$
1939.....	367,179,095	304,373,285	82.89	8,604	7,132	1,472	5.48	1.67
1940.....	429,142,659	335,287,503	78.13	10,074	7,870	2,204	5.63	1.97
1941.....	538,291,947	403,733,542	75.00	12,673	9,504	3,169	5.78	2.25
1942.....	663,610,570	485,783,584	73.20	15,659	11,463	4,196	6.53	2.93
1943.....	778,914,565	560,597,204	71.98	18,398	13,241	5,157	6.98	3.68
1944.....	796,636,786	634,774,021	79.68	18,861	15,029	3,832	6.91	3.82
1945.....	774,971,360	631,497,562	81.49	18,331	14,937	3,394	6.92	3.70
1946.....	718,501,764	623,529,472	86.79	16,967	14,724	2,243	6.83	3.21
1947.....	785,177,920	690,821,047	87.98	18,556	16,326	2,230	7.38	3.01
1948.....	875,832,290	808,126,455	92.27	20,702	18,661	2,041	8.38	2.92

## 6.—Distribution of Operating Expenses of Steam Railways, 1945-48

Item	1945		1946		1947		1948	
	\$	p.c.	\$	p.c.	\$	p.c.	\$	p.c.
Way and structures .....	132,470,385	21.0	122,093,160	19.6	134,097,450	19.4	159,963,352	19.8
Equipment.....	144,500,231	22.9	135,933,150	21.8	145,614,589	21.1	174,473,389	21.6
Traffic.....	11,203,744	1.7	13,781,898	2.2	15,120,289	2.2	16,801,286	2.1
Transportation.....	297,754,037	47.2	304,519,437	48.8	347,620,755	50.3	403,804,530	49.9
General and miscellaneous.	45,569,165	7.2	47,201,827	7.6	48,367,964	7.0	53,083,898	6.6
<b>Totals.....</b>	<b>631,497,562</b>	<b>100.0</b>	<b>623,529,472</b>	<b>100.0</b>	<b>690,821,047</b>	<b>100.0</b>	<b>808,126,455</b>	<b>100.0</b>

**Employment and Salaries and Wages.**—The number of employees registered an increase in 1948 over 1939 of almost 47 p.c. while salaries and wages increased by about 156 p.c. The latter rise was due to an increase in time worked per employee as well as to increased rates of pay. Maintenance of equipment employees, on hourly rates, worked about 9 p.c. more hours and were paid nearly 67 p.c. more wages per employee and transportation employees worked an average of slightly more than 4 p.c. more hours for an increase in pay of about 63 p.c.

## 7.—Steam Railway Employment and Salaries and Wages, 1939-48

NOTE.—Figures for the years 1912-38 are given at p. 551 of the 1941 Year Book.

Year	Employees <sup>1</sup>	Total Salaries and Wages <sup>1</sup>	Average Salaries and Wages	Ratio of Operating Salaries and Wages to—	
				Gross Earnings	Operating Expenses
	No.	\$	\$	p.c.	p.c.
1939.....	129,362	200,373,668	1,549	50.3	60.7
1940.....	135,700	214,505,163	1,581	45.0	57.5
1941.....	148,746	252,398,865	1,697	42.0	56.0
1942.....	157,740	291,416,755	1,847	39.6	54.1
1943.....	169,663	323,801,645	1,908	37.8	52.5
1944.....	175,095	372,064,613 <sup>2</sup>	2,125	42.9	53.8
1945.....	180,603	371,814,379	2,059	43.8	55.2
1946.....	180,383	396,856,901	2,200	50.2	57.8
1947.....	184,415	429,843,142	2,331	54.7	62.2
1948.....	189,963	512,054,795	2,696	58.5	63.4

<sup>1</sup> Figures include employees or wages for "outside operations" amounting to from 3 p.c. to 6 p.c. of total employees and 2 p.c. to 5 p.c. of total salaries and wages. <sup>2</sup> Includes approximately \$10,000,000 in wages earned in 1943.

**Government Aid to Railways.**—In order that the private railways of Canada might be constructed in advance of settlement, as colonization roads, or through thinly settled districts where little traffic was available, it was necessary for federal and provincial governments and even for municipalities to extend some form of assistance. The form of aid was generally a bonus of a fixed amount per mile of railway constructed and, in the early days, grants of land other than for right-of-way were also made.

As the country developed, the objections to the land-grant method became more apparent, and aid was more frequently given in the form of a cash subsidy per mile of line, a loan or a subscription to the shares of the railway. Guarantees of debenture issues were given in a later period and, since the formation of the Canadian National Railways, all debenture issues of that system, except those for

rolling-stock, have been guaranteed by the Federal Government. No new land grants or cash subsidies have been advanced by either the Federal or Provincial Governments since 1939 and the situation, as it existed at Dec. 31, 1940, is set out at pp. 587-588 of the 1942 Year Book.

During the era of railway expansion before the First World War, provincial governments guaranteed the bonds of some railway lines that afterwards were incorporated in the Canadian National Railway System. As these bonds mature or are called they are paid off by the Canadian National Railways in large measure through funds raised by the issue of new bonds with Federal Government guarantee. In this manner, bonds guaranteed by the Governments of Ontario, Manitoba, Saskatchewan, Alberta and New Brunswick have been eliminated in recent years.

### 8.—Railway Bonds Guaranteed by Federal and Provincial Governments, as at Dec. 31, 1948

Government	Canadian National	Other Railways	Total
	\$	\$	\$
Provincial Governments—			
New Brunswick.....	—	465,000	465,000
British Columbia.....	1,952,108	—	1,952,108
Federal Government.....	483,500,224	—	483,500,224
<b>Totals.....</b>	<b>485,452,332</b>	<b>465,000</b>	<b>485,917,332<sup>1</sup></b>

<sup>1</sup> Does not include \$6,985,175 perpetual debenture stock and guaranteed stock of the former Grand Trunk Railway, now part of the Canadian National Railway System, on which interest and dividends are guaranteed by the Federal Government.

### Subsection 3.—Traffic

**Passenger and Freight Traffic.**—Table 9 shows the passenger and freight statistics for all steam railways for the years 1939-48. A separate analysis is given at p. 744 of the operations and traffic of the Canadian National Railways. Since this System is controlled by the Federal Government, the information is considered of special interest.

### 9.—Statistics of Passenger and Freight Services and Revenue Receipts, 1939-48

NOTE.—Figures from 1910-38 are given in the corresponding tables of previous Year Books.

Year	PASSENGERS				
	Revenue Passenger- Train Miles <sup>1</sup>	Passenger- Train Car Miles <sup>1</sup>	Passengers Carried <sup>2</sup>	Passengers Carried One Mile	Passengers Carried One Mile per Mile of Line
	No.	No.	No.	No.	No.
1939.....	36,526,808	284,259,591	20,482,296	1,751,973,333	41,053
1940.....	37,293,721	296,077,068	21,969,871	2,176,467,876	51,090
1941.....	39,947,184	337,144,753	29,779,241	3,205,541,530	75,467
1942.....	43,271,994	395,118,691	47,596,602	4,989,295,894	117,728
1943.....	45,745,039	433,828,200	57,175,840	6,525,064,000	154,122
1944.....	46,575,706	450,042,986	60,335,950	6,873,188,000	162,729
1945.....	47,067,607	447,822,527	53,407,845	6,880,155,000	150,917
1946.....	45,700,856	415,890,589	43,405,177	4,648,558,000	109,773
1947.....	45,367,725	398,646,636	40,941,387	3,732,777,000	88,218
1948.....	46,101,568	410,689,409	38,279,981	3,477,273,000	82,193

For footnotes, see end of table, p. 738.



## 9.—Statistics of Passenger and Freight Services and Revenue Receipts, 1939-48—conc.

Year	PASSENGERS—concluded					
	Average Receipts per Passenger Mile	Average Receipts per Passenger	Average Passenger Journey	Average Passengers per Train	Passenger-Train Revenue per Passenger-Train Mile	
	cts.	\$	miles	No.	\$	
1939.....	2.06	1.76	86	48	1.67	
1940.....	1.96	1.94	99	58	1.97	
1941.....	1.86	2.01	108	80	2.25	
1942.....	1.83	1.92	105	115	2.93	
1943.....	1.90	2.16	114	143	3.68	
1944.....	1.92	2.18	114	148	3.82	
1945.....	1.96	2.34	120	136	3.70	
1946.....	2.15	2.30	107	102	3.21	
1947.....	2.35	2.14	91	82	3.01	
1948.....	2.40	2.18	91	75	2.92	
FREIGHT						
	Revenue Freight-Train Miles	Revenue Freight-Train Car Miles <sup>3</sup>	Freight Carried <sup>4</sup>	Freight Carried One Mile	Freight Carried One Mile per Mile of Line	
	No.	No.	tons	tons	tons	
1939.....	52,231,620	1,944,530,366	84,631,122	31,464,991,270	737,299	
1940.....	59,438,226	2,272,551,025	97,947,541	37,898,196,157	889,608	
1941.....	72,847,697	2,848,006,314	116,808,091	49,982,478,000	1,176,723	
1942.....	77,080,637	2,968,594,473	134,674,537	56,153,953,000	1,325,011	
1943.....	81,443,279	3,132,419,669	153,314,264	63,915,074,000	1,509,674	
1944.....	83,564,629	3,297,475,933	155,326,332	65,928,078,000	1,560,908	
1945.....	80,712,589	3,189,311,345	147,348,566	63,349,095,000	1,498,465	
1946.....	77,794,963	2,973,411,653	139,256,125	55,310,308,000	1,306,121	
1947.....	82,377,565	3,176,646,828	152,855,820	60,143,035,000	1,421,384	
1948.....	83,398,617	3,120,704,440	154,932,804	59,080,323,000	1,396,500	
	Freight Receipts per Ton per Mile	Receipts per Ton Hauled	Average Length of Freight Haul	Average Train Load, Revenue Tons	Average Load per Loaded Car Mile	Revenue per Freight-Train Mile
	cts.	\$	miles	tons	tons	\$
1939.....	0.909	3.38	372	602	27.28	5.48
1940.....	0.882	3.41	387	638	28.39	5.63
1941.....	0.843	3.61	428	686	29.71	5.78
1942.....	0.896	3.74	417	729	30.71	6.53
1943.....	0.890	3.71	417	785	32.75	6.98
1944.....	0.876	3.72	424	789	32.70	6.91
1945.....	0.882	3.79	430	785	32.57	6.92
1946.....	0.961	3.82	397	711	29.95	6.83
1947.....	1.009	3.98	393	730	30.23	7.38
1948.....	1.183	4.51	381	708	30.16	8.38

<sup>1</sup> Includes express, baggage, mail and other cars.  
caboose miles and excludes miles made in passenger and non-revenue trains.

<sup>2</sup> Duplications included.

<sup>3</sup> Includes

<sup>4</sup> Duplications eliminated; see Table 10 for details of freight carried.

**Commodities Hauled.**—Revenue freight carried by the railways in 1948 showed an increase of 1.4 p.c. over 1947. The peak volume was reached in 1944. The average haul was reduced from 393 miles in 1947 to 381 miles in 1948 and ton-miles decreased accordingly. The principal commodities showing increases over 1947 were live stock, anthracite coal, bituminous coal, coke, ores and concentrates, sand and gravel, base metals, and other mine products. Pulpwood also moved in heavier volume while most items in the manufactured and miscellaneous group registered improvement. The intransit movement of war supplies, motor-vehicles

and gasoline and petroleum products during the war years between United States points over Canadian lines had been particularly heavy and with wheat was responsible for the 1944 record.

### 10.—Commodities Hauled as Freight on Steam Railways, 1944-48

NOTE.—In this table duplications are eliminated, i.e., the same freight handled by two or more railways is counted only once. The statistics do not include the United States lines of the Canadian National Railways, but the link of the Canadian Pacific Railway line across Maine, U.S.A., is included, as are the Canadian sections of United States railways.

Group and Product	1944	1945	1946	1947	1948
	tons	tons	tons	tons	tons
<b>Agricultural Products</b>					
Wheat.....	19,166,310	18,902,873	12,195,199	12,888,800	11,221,579
Oats.....	3,274,128	3,665,012	3,352,329	2,929,297	2,356,099
Other grain.....	4,263,697	4,294,454	3,630,519	4,836,652	4,514,027
Flour.....	2,438,640	2,621,881	2,672,368	2,929,758	2,302,510
Other mill products.....	3,416,639	3,538,199	3,853,012	3,662,558	2,853,657
Other agricultural products.....	4,716,705	4,803,909	5,168,436	4,833,258	4,408,579
<b>Totals, Agricultural Products.....</b>	<b>37,276,119</b>	<b>37,826,328</b>	<b>30,871,863</b>	<b>32,080,323</b>	<b>27,656,451</b>
<b>Animal Products</b>					
Live stock.....	1,383,003	1,341,491	1,229,185	1,059,086	1,153,196
Meats and other edible packing-house products.....	1,422,365	1,233,710	1,053,581	960,855	942,278
Other animal products.....	1,156,657	1,152,580	974,079	873,652	793,995
<b>Totals, Animal Products.....</b>	<b>3,962,025</b>	<b>3,727,781</b>	<b>3,256,845</b>	<b>2,893,593</b>	<b>2,889,469</b>
<b>Mine Products</b>					
Coal, anthracite.....	4,499,947	3,506,113	4,853,090	5,001,377	5,675,849
Coal, bituminous.....	14,870,676	13,599,473	14,976,072	14,705,645	16,587,478
Coal, sub-bituminous.....	1	1,824,055	2,660,006	2,541,982	2,426,229
Coal, lignite.....	3,450,644	1,976,310	1,198,309	1,223,106	1,272,774
Coke.....	2,338,440	2,711,620	2,226,818	1,967,287	2,141,063
Ores and concentrates.....	9,472,768	8,161,513	7,261,799	9,901,768	11,187,732
Base bullion, matte, pig and ingot (non-ferrous metals).....	1,474,859	1,509,002	1,167,234	1,291,728	1,457,668
Sand and gravel.....	1,704,796	1,919,592	2,708,467	3,210,425	3,556,854
Stone (crushed, ground, broken).....	2,179,283	2,218,017	2,261,027	2,942,111	2,989,724
Other mine products.....	7,238,915	6,064,692	6,419,427	8,439,367	9,437,571
<b>Totals, Mine Products.....</b>	<b>47,230,328</b>	<b>43,490,387</b>	<b>45,731,749</b>	<b>51,224,796</b>	<b>56,732,942</b>
<b>Forest Products</b>					
Logs, posts, poles, piling.....	1,279,317	1,285,585	1,627,938	1,639,274	1,582,800
Cordwood and other firewood.....	1,437,240	1,115,396	1,095,077	799,174	623,070
Pulpwood.....	4,631,222	5,428,452	6,727,929	7,860,080	8,995,154
Lumber, timber, box, crate and cooperage material.....	6,438,991	6,366,457	6,771,672	7,797,668	7,514,232
Other forest products.....	769,390	624,879	626,925	740,954	727,113
<b>Totals, Forest Products.....</b>	<b>14,556,160</b>	<b>14,770,769</b>	<b>16,849,541</b>	<b>18,837,150</b>	<b>19,442,369</b>
<b>Manufactures and Miscellaneous</b>					
Gasoline and petroleum products.....	12,344,731	8,056,963	4,608,415	5,585,708	5,670,944
Iron and steel (bar, sheet, structural pipe).....	2,917,205	2,780,032	2,213,340	2,808,025	2,989,652
Automobiles, trucks and parts.....	2,745,277	2,043,343	1,670,817	2,210,709	2,162,322
Newsprint paper.....	2,854,971	2,890,982	3,483,627	3,825,252	3,809,313
Wood-pulp.....	1,749,315	1,827,339	1,829,305	2,217,307	2,311,901
Other manufactures and miscellaneous.....	26,110,938	26,272,861	24,643,078	26,790,201	27,160,763
Merchandise (all L.C.L. freight) <sup>2</sup> .....	3,579,263	3,661,781	4,097,545	4,382,756	4,106,678
<b>Totals, Manufactures and Misc.....</b>	<b>52,301,700</b>	<b>47,533,301</b>	<b>42,546,127</b>	<b>47,819,958</b>	<b>48,211,573</b>
<b>Grand Totals.....</b>	<b>155,326,332</b>	<b>147,348,566</b>	<b>139,256,125</b>	<b>152,855,820</b>	<b>154,932,804</b>

<sup>1</sup> Included with lignite.

<sup>2</sup> Less than carload lot.

**Railway Accidents.**—In Tables 11 and 12 all injuries to passengers are included in the figures but only injuries that keep the employee from his work for at least three days during the ten days following the accident are recorded for employees.

**11.—Passengers, Employees and Others Killed or Injured on Steam Railways, 1939-48**

NOTE.—Figures for 1919-38 are given in the corresponding table of previous Year Books beginning with the 1922-23 edition.

Year	Passengers		Employees		Others <sup>1</sup>		Totals	
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
	No.	No.	No.	No.	No.	No.	No.	No.
1939.....	1	362	53	5,170	240	583	299	6,115
1940.....	6	378	59	6,231	235	606	300	7,215
1941.....	10	652	106	7,999	287	895	403	9,546
1942.....	44	779	120	10,008	279	743	443	11,530
1943.....	9	546	130	12,667	202	706	341	13,919
1944.....	8	562	103	13,187	242	630	353	14,379
1945.....	10	499	98	13,147	246	705	354	14,351
1946.....	3	526	105	11,406	219	706	327	12,638
1947.....	35	464	103	10,620	262	755	400	11,839
1948.....	15	351	99	9,980	271	825	385	11,156

<sup>1</sup> Includes trespassers walking along tracks, stealing rides, etc., and persons crossing tracks at level crossings.

These accidents include all those in which railway trains were involved and accidents on railway property. The classification of accidents used in the Dominion Bureau of Statistics vital statistics treats collisions between motor-vehicles and trains as motor-vehicle accidents; provincial statistics also class them as motor-vehicle accidents and, consequently, adjustments should be made when compiling total accidental deaths of all kinds or comparing results of accidents of different kinds, such as train and motor-vehicle.

**12.—Persons Killed or Injured on Steam Railways, 1946-48**

Class of Person and Description of Accident	Accidents resulting from Movement of Trains, Locomotives or Cars					
	1946		1947		1948	
	Killed	Injured	Killed	Injured	Killed	Injured
	No.	No.	No.	No.	No.	No.
<b>Class of Person—</b>						
Passengers.....	2	349	34	355	15	284
Employees.....	90	2,844	77	2,963	76	2,906
Trespassers.....	89	94	95	89	103	74
Non-trespassers.....	123	469	163	524	157	551
Postal clerks, expressmen, etc.....	—	24	—	53	1	26
<b>Totals.....</b>	<b>304</b>	<b>3,780</b>	<b>369</b>	<b>3,984</b>	<b>352</b>	<b>3,841</b>
<b>Description of Accidents (Employees and Passengers only)—</b>						
Coupling and uncoupling.....	6	120	1	173	6	146
Collisions.....	32	229	41	249	29	223
Derailments.....	5	56	5	71	11	44
Locomotives or cars breaking down.....	—	3	4	4	—	1
Falling from trains or cars.....	3	123	10	101	7	139
Getting on or off trains.....	1	632	4	685	6	734
Struck by trains, etc.....	26	53	23	48	25	56
Overhead and other obstruction.....	1	30	3	32	—	36
Other causes.....	13	1,947	20	1,955	7	1,811
<b>Totals.....</b>	<b>92</b>	<b>3,193</b>	<b>111</b>	<b>3,318</b>	<b>91</b>	<b>3,190</b>
	All Other Accidents					
<b>Class of Person—</b>						
Stationmen.....	3	1,300	1	1,246	—	897
Shopmen.....	3	3,115	10	2,963	8	2,720
Trackmen.....	7	2,828	5	2,550	9	2,594
Other employees.....	2	1,319	10	898	6	863
Passengers.....	1	177	1	109	—	67
Others.....	7	119	4	89	10	174
<b>Totals.....</b>	<b>23</b>	<b>8,858</b>	<b>31</b>	<b>7,855</b>	<b>33</b>	<b>7,315</b>



## Subsection 4.—The Canadian National Railway System

A description of the origin and growth of Government-owned railways in Canada is given at pp. 601-603 of the 1926 Year Book. That article describes their consolidation under the Canadian National Railways in 1923. The Hudson Bay Railway is a direct liability of the Federal Government and has been operated by the Canadian National Railways for the Government since Apr. 1, 1935, but is not included in the data for Canadian National Railways; to Mar. 31, 1948, the total capital expenditure on this account was \$33,263,260, exclusive of the expenditure of \$6,240,096 on the terminal at Port Nelson, Man., and a loss of \$4,383,427 on operation. The operating deficit for the fiscal year 1947-48 was \$266,364.

The major portion of Federal Government investments in railways consists of construction costs of the Intercolonial System, the National Transcontinental Railway and the Hudson Bay Railway, and the purchase price of small railways in the Eastern Provinces. The terminals at Churchill, Man., consisting of a grain elevator, a warehouse and docks have been transferred to the National Harbours Board and the investment removed from the railway account. Loans and advances to the Canadian National Railways for payment of operating deficits were charged to the Consolidated Revenue Account of Canada and also cleared from the railway account. Other adjustments were made under the Canadian National Railways Capital Revision Act, 1937.

In view of the interest in the publicly-owned railway system, certain salient statistics are presented showing the assets, debt, operating accounts, mileage and traffic for the system. More detail is available from the report "Canadian National Railways, 1923-48" published by the Dominion Bureau of Statistics.

## 13. — Assets of the Canadian National Railway System, as at Dec. 31, 1922 and 1948

Account	Dec. 31, 1922	Dec. 31, 1948	Increase (+) or Decrease (—)
	\$	\$	\$
<b>Investments—</b>			
Road and equipment.....	1,765,323,644	2,071,916,913	+306,593,269
Improvements on leased railway property.....	1,492,123	2,465,307	+973,184
Sinking funds.....	4,629,855	—	—4,629,855
Deposits in lieu of mortgaged property sold.....	6,171,808	18,698,204	+12,526,396
Miscellaneous physical property.....	34,767,914	64,535,010	+29,767,096
Affiliated companies.....	24,253,323	64,547,637	+40,294,314
Other investments.....	5,789,464	920,142	—4,869,322
Deferred maintenance funds.....	—	17,000,000	+17,000,000
<b>Totals, Investments.....</b>	<b>1,842,428,131</b>	<b>2,240,083,213</b>	<b>+397,655,082</b>
<b>Current Assets—</b>			
Cash.....	14,651,422	25,417,676 <sup>1</sup>	+10,766,254
Special deposits.....	6,139,435	4,814,419	—1,325,016
Loans and bills receivable.....	11,600	—	—11,600
Traffic and car service, balances receivable.....	2,528,622	—	—2,528,622
Net balances receivable from agents and conductors..	5,386,673	16,604,558	+11,217,885
Miscellaneous accounts receivable.....	16,857,420	11,581,850 <sup>2</sup>	—5,275,570
Materials and supplies.....	41,408,999	74,024,304	+32,615,305
Interest and dividends receivable.....	377,003	214,539	—162,464
Rents receivable.....	112,269	—	—112,269
Other current assets.....	106,775	4,617,367	+4,510,592
<b>Totals, Current Assets.....</b>	<b>87,580,218</b>	<b>137,274,713</b>	<b>+49,694,495<sup>3</sup></b>

For footnotes, see end of table, p. 742.

### 13.—Assets of the Canadian National Railway System, as at Dec. 31, 1922 and 1948 —concluded

Account	Dec. 31, 1922	Dec. 31, 1948	Increase (+) or Decrease (—)
	\$	\$	\$
<b>Deferred Assets—</b>			
Working fund advances.....	166,847	423,745	+256,898
Insurance and other funds.....	352,488	13,486,000	+13,133,512
Pension contract fund.....	—	45,120,000	+45,120,000
Other deferred assets.....	11,805,962	2,371,909	—9,434,053
<b>Totals, Deferred Assets.....</b>	<b>12,325,297</b>	<b>61,401,554</b>	<b>+49,076,357</b>
<b>Unadjusted Debits—</b>			
Rents and insurance premiums paid in advance.....	322,059	74,077	—247,982
Discount on capital stock.....	634,960	—	—634,960
Discount on funded debt.....	1,919,635	4,209,025	+2,289,390
Other unadjusted debits.....	12,820,903	4,086,559	—8,734,344
<b>Totals, Unadjusted Debits.....</b>	<b>15,697,557</b>	<b>8,369,661</b>	<b>—7,327,896</b>
<b>Grand Totals.....</b>	<b>1,958,031,203</b>	<b>2,447,129,241</b>	<b>+489,098,038</b>

<sup>1</sup> Includes demand loans and deposits. <sup>2</sup> Includes 1948 deficit of \$33,532,741 receivable from Federal Government. <sup>3</sup> Increase in current liabilities \$44,449,381.

**Capital Structure and Debt.**—The share capital on Dec. 31, 1922, consisted of \$165,627,739 stock of the Grand Trunk Railway held by the Federal Government and \$100,000,600 of the Canadian Northern Railway stock also held by the Federal Government. There was also outstanding \$4,591,975 stock of constituent lines held by the public. Table 14 shows the capital liabilities of the Canadian National Railways other than shareholders' capital. The amounts shown under "Active Assets" represent, largely, temporary loans and explain the large increases during the war years.

### 14.—Debt of the Canadian National Railway System, as at Dec. 31, 1939-48

NOTE.—Figures for the years 1922-37 are given at p. 591 of the 1942 Year Book.

At Dec. 31—	Funded Debt Held by Public			Government Loans and Advances—	Appropriations for Canadian Government Railways <sup>1</sup>	Grand Totals <sup>2</sup>
	Guaranteed by—		Un- guaranteed			
	Federal Government	Provincial Governments				
	\$	\$	\$	\$	\$	\$
1939.....	1,053,915,895	38,131,740	171,353,676	45,382,081	16,771,981	2,000,210,121
1940.....	1,000,881,473	38,131,740	160,803,121	113,882,334	16,771,981	2,004,496,438
1941.....	940,171,069	38,131,740	156,091,494	195,345,884	16,771,981	2,014,253,131
1942.....	741,896,436	4,718,822	62,600,816	502,856,461	16,771,981	2,028,137,130
1943.....	685,290,925	2,786,056	56,155,492	537,323,765	16,771,981	2,035,393,793
1944.....	576,585,327	2,702,155	50,166,424	645,103,872	16,771,981	2,050,695,085
1945.....	525,688,314	2,586,932	44,904,751	674,201,613	16,771,981	2,046,123,159
1946.....	486,820,210	1,952,108	41,650,680	701,765,305	16,771,981	2,029,614,299
1947.....	536,807,069	1,952,108	44,100,585	672,698,368	16,771,981	2,051,096,952
1948.....	490,485,399	1,952,108	91,795,151	743,722,844	16,771,981	2,123,537,672

<sup>1</sup> Working capital, the remainder of the account being eliminated (see p. 591 of the 1942 Year Book).  
<sup>2</sup> Includes Federal Government Proprietors Equity and capital stock held by the public; for detail see "Canadian National Railways", Dominion Bureau of Statistics Report.

**Operating Finances.**—Gross revenues, operating expenses and net revenues include only those from steam railway and commercial telegraph operations, but the deficits are for the entire System, including the operating results of the Niagara, St. Catharines and Toronto Railway (electric) and other railways operated separately, hotels, commercial telegraphs, coastal steamships and all other outside operations.

Under the Canadian National Railways Capital Revision Act (c. 22, 1937), interest on Federal Government loans, amounting to \$530,832,598, and Government claims for interest, amounting to \$43,949,039, were cancelled as liabilities of the Railway and these have been eliminated from Table 15 as fixed charges. Loans of \$270,037,438 for capital and \$373,823,120 for deficits were cancelled.

#### 15.—Gross Revenues, Operating Expenses, Net Revenues, Fixed Charges and Deficits of the Canadian National Railway System,<sup>1</sup> 1939-48

NOTE.—Appropriations, etc., for the Hudson Bay Railway are not included with these data; although the Railway was returned to the Government while under construction, it is not now a part of the Canadian National Railways. Figures for 1911-25 are given at p. 660 of the 1936 Year Book and for 1926-38, at p. 590 of the 1942 edition.

Year	Gross Operating Revenues	Operating Expenses	Income Available for Fixed Charges	Total Fixed Charges	Net Income Deficit <sup>2</sup>	Cash Deficit
	\$	\$	\$	\$	\$	\$
1939.....	203,820,186	182,965,768	15,248,900	53,483,164	38,239,264	40,095,520 <sup>3</sup>
1940.....	247,527,225	202,519,813	37,920,718	53,305,288	15,384,570	16,965,044 <sup>3</sup>
1941.....	304,376,778	237,768,437	58,601,315	55,162,354	Cr. 5,438,961	Cr. 4,016,327
1942.....	375,654,544	288,998,675	78,952,433	51,669,935	Cr. 27,282,498	Cr. 25,063,268
1943.....	440,615,954	324,475,669	87,859,084	52,189,536	Cr. 35,669,548	Cr. 35,639,412
1944.....	441,147,510	362,547,044	73,473,733	50,474,480	Cr. 22,999,253	Cr. 23,026,924
1945.....	433,773,394	355,294,048	73,521,185	49,009,507	Cr. 24,511,678	Cr. 24,756,130
1946.....	400,586,026	357,236,718	37,239,784	46,685,316	9,445,532	8,961,570 <sup>3</sup>
1947.....	438,197,980	397,122,607	29,330,757	45,925,891	16,595,134	15,885,194 <sup>3</sup>
1948.....	491,269,950	464,739,970	12,502,931	46,341,727	33,838,796	33,532,741 <sup>3</sup>

<sup>1</sup> Includes the Central Vermont Railway, Inc.

<sup>2</sup> Includes appropriations for insurance fund and excludes interest on Government loans eliminated by the Capital Revision Act, 1937.

<sup>3</sup> Contributed by the Federal Government.

Table 16 has been compiled to reconcile the investments in and loans to the Canadian National Railways (including Canadian Government Railways) as shown in the Public Accounts for the year ended Mar. 31, 1948, with the debt to the Federal Government shown in the Railways' balance sheet at Dec. 31, 1947, which is covered by Federal Government proprietor's equity, and the columns "Active Assets in Public Accounts" and "Appropriations for Canadian Government Railways" in Table 14.

#### 16.—Reconciliation between the Public Accounts, Mar. 31, 1948, and the Balance Sheet of the Canadian National Railway System,<sup>1</sup> Dec. 31, 1947

Item	Public Accounts Mar. 31, 1948	Canadian National Balance Sheet Dec. 31, 1947
	\$	\$
Canadian Government Railways—		
Capital expenditures.....	377,724,514	377,677,766
Working capital.....	16,771,981	16,771,981
Canadian National Railways—		
Federal Government equity:		
Canadian National Railways capital stock.....	18,000,000	18,000,000
Canadian National Railways securities trust stock.....	378,518,135	378,518,135
Temporary Loans.....	743,953,125	672,698,368
Miscellaneous investments—Grand Trunk Railway stock purchased prior to Confederation—not in Canadian National Railways balance sheet.....	121,740	—
Transactions between Dec. 31, 1947 and Mar. 31, 1948:		
Advanced by Federal Government.....	—	72,816,424
Repayments by Canadian National Railways.....	—	Cr. 1,561,667
Expenditure by Federal Government not in Canadian National Railways balance sheet—		
Grand Trunk Railway stock purchased prior to Confederation	—	121,740
Canadian Government Railways—Capital expenditure—Fairview Subway.....	—	46,747
<b>Totals.....</b>	<b>1,535,089,495</b>	<b>1,535,089,495</b>

<sup>1</sup> Includes Canadian Government Railways.



*Mileage and Traffic.*—At Dec. 31, 1948, steam-railway track mileage of the Canadian National Railways (including lines in the United States but exclusive of the Northern Alberta Railways and Toronto Terminals Railway, which are controlled jointly by the Canadian National and the Canadian Pacific Railways) was 23,404. Including the Thousand Islands Railway, 4.51 miles, and the Muskegon Railway and Navigation Co., 5.25 miles, controlled but operated separately, the total steam mileage was 23,413.8. The grand total, including 115.4 miles of electric lines, was 23,529.2 miles.

**17.—Train Traffic Statistics<sup>1</sup> of the Canadian National Railways (Canadian and United States Lines) 1947 and 1948**

Mileage and Traffic		1947	1948
<b>Train Mileage—</b>			
Passenger trains..... Miles		23,346,277	23,901,589
Freight trains..... "		44,027,737	44,982,912
<b>Totals, Train Miles<sup>2</sup>..... No.</b>		<b>67,374,014</b>	<b>68,884,501</b>
<b>Passenger-Train Car Mileage—</b>			
Coaches and combination..... Miles		68,364,113	70,023,003
Motor unit cars..... "		791,663	725,399
Parlour, sleeping and dining cars..... "		58,789,149	60,824,388
Baggage, mail, express, etc..... "		78,594,464	80,523,799
<b>Totals, Passenger-Train Car Miles<sup>2</sup>..... No.</b>		<b>206,539,389</b>	<b>212,096,589</b>
<b>Freight-Train Car Mileage—</b>			
Loaded freight-car miles..... Miles		1,214,766,511	1,212,172,361
Empty freight-car miles..... "		510,886,859	496,484,626
Caboose miles..... "		43,978,279	45,166,091
<b>Totals, Freight-Train Car Miles<sup>2</sup>..... No.</b>		<b>1,769,631,649</b>	<b>1,753,823,078</b>
<b>Passenger Traffic—</b>			
Passengers carried (earning revenue)..... No.		21,226,889	20,083,064
Passengers carried (earning revenue) one mile..... "		1,844,649,873	1,754,856,873
Passenger-train miles per mile of road..... "		995	1,021
Average passenger journey..... miles		86.90	87.38
Average amount received per passenger..... \$		2.02657	2.06951
Average amount received per passenger mile..... \$		0.02332	0.02368
Average passengers per train mile..... No.		79.00	73.40
Average passengers per car mile..... \$		15.20	14.00
Total passenger-train earnings per train mile..... \$		3.13	3.09
Total passenger-train revenue per mile of road..... \$		3,118.98	3,153.70
<b>Freight Traffic—</b>			
Revenue freight carried..... tons		86,221,279	85,240,738
Revenue freight carried one mile..... "		32,945,415,090	32,942,999,471
Revenue freight carried one mile per mile of road..... "		1,407,799	1,407,783
Total (all classes) freight carried one mile per mile of road..... "		1,533,213	1,532,282
Average tons revenue freight per train mile..... No.		748	732
Average tons (all classes) freight per loaded car mile..... "		29.54	27.60
Average hauls revenue freight..... miles		382.10	386.47
Freight revenue per train mile..... \$		7.78	8.75
Freight revenue per mile of road..... \$		14,639.01	16,817.69
Freight revenue per ton..... \$		3.97	4.62
Freight revenue per ton mile..... \$		0.01040	0.01195

<sup>1</sup> Excludes electric lines.<sup>2</sup> Work service excluded.

## Section 2.—Electric Railways\*

Replacing the horse-car systems, used in Montreal and Toronto as early as 1861, electric street railways were first seen in operation in Canada in 1885, when a successful experimental railway was constructed and operated at the Toronto Exhibition Grounds. Before many years their safety and convenience resulted in the discarding of the older systems. The first electric railway line in Canada, and probably the first in North America, ran between Windsor and Walkerville and was established early in June, 1886 (it is recorded that it was in active operation before June 11).

The cheap and reasonably rapid conveyance of human beings is a necessity of modern urban life. In the cities of Eastern Canada, electric street railways are generally operated by private companies under city franchises, while in a considerable number of cities in Ontario and the West the electric railways are owned and operated by the municipalities.

Statistics presented cover the urban and interurban operations of the electric railway systems.

**Equipment.**—The single overhead-trolley system is used by all electric railways but Montreal, Toronto, Winnipeg, Vancouver and several other municipalities have begun to use trackless trolley-buses (518 of these buses being in service in 1948). Of the 30 systems, 19 operated both electric cars and motor-buses in 1948, the buses numbering 1,981. The main advantage of the bus is that it is not confined to a fixed route and, in the case of both motor-buses and trolley-buses, the expense of track maintenance is eliminated.

### 18.—Equipment of Electric Railways, 1945-48

Equipment	1945	1946	1947	1948	Equipment	1945	1946	1947	1948
	No.	No.	No.	No.		No.	No.	No.	No.
<b>Passenger Vehicles—</b>					<b>Other Vehicles—</b>				
Closed cars.....	3,361	3,358	3,192	2,961	Baggage, express and mail cars.....	19	17	17	17
Open cars.....	4	4	8	6	Freight cars.....	165	154	118	118
Combination passenger and baggage.....	7	7	6	5	Locomotives.....	53	56	56	56
Cars without electrical equipment.....	131	133	139	133	Snow ploughs.....	75	71	61	51
Motor-buses.....	1,454	1,491	1,949	1,981	Sweepers.....	149	148	143	118
Trackless trolley-buses	67	77	379	518	Trucks.....	148	162	172	151
					Miscellaneous.....	206	207	216	212
<b>Totals, Passenger Vehicles.....</b>	<b>5,024</b>	<b>5,070</b>	<b>5,673</b>	<b>5,604</b>	<b>Totals, Other Vehicles.....</b>	<b>815</b>	<b>815</b>	<b>783</b>	<b>723</b>

**Finances.**—When electric railways have ceased to operate because of either a decline in traffic or the substitution of motor-buses, their statistics have been excluded from Table 19. Consequently, fluctuations in revenues, etc., have been affected by variations in traffic and also by changes in the mode of local transportation. Despite these changing conditions, the gross revenues of electric railways

\* For further details see "Electric Railways of Canada, 1948" published by the Dominion Bureau of Statistics.

continued to increase since the low point reached in 1933, and very marked increases were shown from 1940 to 1945. The ratio of expenses to receipts rose from a low of less than 63 p.c. in 1942 to almost 99 p.c. in 1948.

### 19.—Financial Statistics of Electric Railways, 1939-48

NOTE.—Figures for 1901-38 are given in the corresponding table of previous Year Books beginning with the 1926 edition.

Year	Capital Liability			Investment in Road and Equip- ment	Gross Earnings	Operating Expenses	Ratio of Ex- penses to Re- ceipts	Em- ployees	Salaries and Wages
	Stocks	Funded Debt	Total						
	\$	\$	\$	\$	\$	\$	p.c.	No.	\$
1939.....	39,668,660	164,912,746	204,581,406	198,481,728	42,864,150	29,605,328	69.07	14,061	19,716,985
1940.....	38,786,423	161,396,724	200,183,147	203,869,891	47,311,009	32,624,012	68.96	14,204	20,649,358
1941.....	37,665,091	155,867,823	193,532,914	201,279,871	55,334,647	37,030,823	66.92	14,801	23,193,704
1942.....	37,616,432	151,523,248	189,139,680	205,989,595	69,034,130	43,473,516	62.97	16,051	27,923,343
1943.....	37,492,392	147,433,845	184,926,237	204,586,208	80,027,414	54,548,335	68.16	17,896	33,975,281
1944.....	37,540,432	142,364,766	179,905,198	202,666,204	84,730,173	58,202,151	68.69	19,034	36,845,152
1945.....	37,329,194	142,384,083	179,713,277	205,026,475	88,939,451	64,533,940	72.56	20,091	39,364,771
1946.....	35,656,763 <sup>1</sup>	132,042,089	167,698,852	203,537,797	87,515,721	75,550,821	86.33	21,700	45,675,363
1947.....	33,915,932	138,246,540	172,162,472	218,439,361	86,519,712	81,787,723	94.53	22,627	50,117,441
1948.....	28,138,481	140,692,280	168,830,761	217,385,299	89,310,215	83,024,727	98.56	22,593	55,268,083

<sup>1</sup> Mainly reduction, \$1,602,500 stock Hamilton Street Railway.

**Traffic.**—The passenger mileage travelled by electric cars in 1948 amounted to 110,797,890, by trackless trolley-buses 12,335,969 and by motor-buses 59,809,850. The number of passengers carried by electric railways in the years since 1939 showed an especially sharp rise over previous years due to improved conditions, and the curtailment of passenger automobile traffic during the War. The 1,344,916,773 passengers carried in 1946 was by far the greatest traffic ever handled by these systems; the number was slightly lower in 1947 and in 1948.

### 20.—Statistics of Electric Railway Operations, 1939-48

NOTE.—Figures for 1901-38 are given in the corresponding table of previous Year Books beginning with the 1933 edition.

Year	Miles of Road		Electric Car and Bus Mileage			Fare Passengers Carried <sup>1</sup>	Freight Carried <sup>1</sup>
	Total	With Double Track	Passenger	Other	Total		
	miles	miles	miles	miles	miles	No.	tons
1939.....	1,083.49	508.56	121,528,380	2,287,878	123,816,258	632,533,152	2,313,748
1940.....	1,040.04	495.64	125,886,523	2,367,910	128,254,433	691,737,901	2,599,007
1941.....	1,028.24	491.43	134,832,228	2,746,314	137,578,542	795,170,569	3,265,449
1942.....	1,017.24	488.01	152,518,129	2,852,757	155,370,886	996,208,535	3,711,468
1943.....	1,019.29	487.91	164,050,357	2,773,462	166,823,819	1,177,003,833	3,751,785
1944.....	1,019.69	490.17	169,421,343	2,756,755	172,178,098	1,249,707,399	3,769,959
1945.....	1,015.54	488.30	175,498,520	2,777,976	178,276,496	1,316,571,540	3,639,989
1946.....	1,004.44	485.06	177,256,084	2,822,300	180,078,384	1,344,916,773	3,506,805
1947.....	895.25	436.95	180,204,812	2,808,252	183,013,064	1,323,723,782	3,655,278
1948.....	778.92	391.78	182,943,709	3,038,989	185,982,698	1,309,565,795	4,050,111

<sup>1</sup> Including passengers and freight carried on buses and trackless trolley-buses operated by electric railways.



## 21.—Passengers, Employees and Others Killed or Injured on Electric Railways, 1939-48

NOTE.—Figures for 1900-38 are given in the corresponding tables of previous Year Books beginning with the 1926 edition.

Year	Passengers		Employees		Others		Totals	
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
	No.	No.	No.	No.	No.	No.	No.	No.
1939.....	1	2,039	3	353	33	764	37	3,156
1940.....	1	2,263	2	363	39	847	42	3,473
1941.....	1	2,508	5	423	60	1,002	66	3,933
1942.....	2	3,157	3	489	86	1,338	91	4,984
1943.....	—	4,301	2	722	78	1,491	80	6,514
1944.....	3	3,980	7	835	88	1,556	98	6,371
1945.....	2	4,092	3	944	104	1,592	109	6,628
1946.....	8	4,009	3	904	66	1,584	77	6,497
1947.....	2	4,181	4	910	71	1,469	77	6,560
1948.....	2	3,792	5	1,336	74	1,328	81	6,456

## Section 3.—Express Companies

Express service is an expedited freight service on passenger trains, but express companies do not own the means of performing their services; they use railway facilities by virtue of contracts with the railway companies. Express companies in Canada have had close relations with the railways practically from the beginning.

Goods are sent by express for quick transit, so that express rates do not generally compete with freight rates. Thus, in its first tariff the Dominion Express Company, in pursuance of its contract with the Canadian Pacific Railway, gave a rate of  $2\frac{1}{2}$  times the maximum first-class railway freight rate for the same goods carried the same distance. The majority of the contracts between express and railway companies for carrying express freight are on the basis of a percentage of the gross express revenue. The rates paid by the shipper are subject to the approval of the Board of Transport Commissioners. Express companies are all organized under powers conferred by Acts of the Federal Parliament and their business consists in the expeditious shipment of valuable live stock, and such perishable commodities as fresh fish, fruit, etc., the forwarding of parcels, and the issue of money orders, travellers cheques, letters of credit and other forms of financial paper.

**Express Company Operations.**—Four express organizations operate in Canada—three Canadian and one American. The Canadian Pacific Express Company, formerly the Dominion Express Company, is a subsidiary of the Canadian Pacific Railway and handles the express business on the railways and the inland and ocean steamship lines of the parent company. The express business of the Canadian National and Northern Alberta Railways is handled by departments of the respective railways. The Railway Express Agency, Incorporated, operates over the Canadian sections of United States railways and over the route from Skagway to points in Yukon. No statistics are available regarding the volume of traffic carried by express. Much of the traffic consists of parcels and small lots that would make statistical classification and measurement very difficult. However, there is also an important movement in car lots of live stock, fresh fish, fruit, vegetables and other perishable commodities.

**22.—Mileages Operated, Revenues and Expenses of Express Companies, 1939-48**

NOTE.—Figures for 1911-38 are given in the corresponding table of previous Year Books beginning with the 1927-28 edition.

Year or Company	Mileages Operated <sup>1</sup>	Gross Earnings	Operating Expenses	Express Privileges <sup>2</sup>	Net Operating Revenues
	No.	\$	\$	\$	\$
1939.....	65,390	19,410,091	10,622,936	8,313,218	473,937
1940.....	65,184	26,067,019	11,095,071	12,650,274	2,321,674
1941.....	53,359	22,933,227	12,202,191	10,113,218	617,818
1942.....	52,824	25,725,512	13,391,508	11,388,477	945,527
1943.....	52,670	32,875,971	15,824,160	15,323,905	1,727,906
1944.....	50,668	34,357,760	18,856,659	15,301,512	199,589
1945.....	50,938	37,171,862	20,040,339	16,711,647	419,876
1946.....	51,365	39,260,553	22,670,616	16,841,229	Dr. 251,292
<b>1947</b>					
Canadian National Express.....	23,997	21,109,448	13,214,237	9,268,157	-1,372,946
Canadian Pacific Express.....	21,541	19,689,094	11,711,677	7,745,247	232,170
Northern Alberta Railways.....	928	432,583	197,207	213,991	21,385
Railway Express Agency.....	4,875	1,083,633	647,069	422,666	13,898
<b>Totals, 1947.....</b>	<b>51,341</b>	<b>42,314,758</b>	<b>25,770,190</b>	<b>17,650,061</b>	<b>-1,105,493</b>
<b>1948</b>					
Canadian National Express.....	24,465	23,250,598	15,689,889	10,231,765	-2,671,056
Canadian Pacific Express.....	21,572	21,802,824	13,825,560	7,716,254	261,010
Northern Alberta Railways.....	928	456,413	215,146	222,054	19,213
Railway Express Agency.....	4,875	1,299,277	667,458	615,915	15,904
<b>Totals, 1948.....</b>	<b>51,840</b>	<b>46,809,112</b>	<b>30,398,053</b>	<b>18,785,988</b>	<b>-2,374,929</b>

<sup>1</sup> Over railways, boat lines and motor-carrier and aircraft routes. <sup>2</sup> Amounts paid by express companies to the carriers, i.e., railways, steamship lines, etc., for transporting express matter.

**23.—Business Transacted by Express Companies in Financial Paper, 1944-48**

Description	1944	1945	1946	1947	1948
	\$	\$	\$	\$	\$
Money orders, domestic and foreign.....	101,819,945	101,257,845	116,368,000	126,592,398	133,668,100
Travellers cheques, domestic and foreign.....	1,729,925	2,223,722	4,245,528	5,697,740	6,654,176
"C.O.D." cheques.....	11,113,936	13,282,676	19,033,971	22,745,649	23,693,890
Telegraphic transfers.....	1,229,742	1,300,822	676,799	367,058	207,694
<b>Totals.....</b>	<b>115,893,548</b>	<b>118,070,065</b>	<b>140,324,298</b>	<b>155,402,845</b>	<b>164,223,860</b>

**24.—Employees, Salaries and Wages and Commissions of Express Companies, 1939-48**

Year	Employees <sup>1</sup>	Salaries and Wages <sup>2</sup>	Com-missions Paid	Year	Employees <sup>1</sup>	Salaries and Wages <sup>2</sup>	Com-missions Paid
	No.	\$	\$		No.	\$	\$
1939.....	4,737	7,412,300	967,227	1944.....	6,705	13,263,739	1,729,195
1940.....	4,843	7,672,761	1,091,470	1945.....	7,160	13,945,167	1,846,884
1941.....	5,084	8,451,872	1,139,474	1946.....	7,430	16,060,439	1,975,856
1942.....	5,296	9,417,112	1,253,428	1947.....	8,017	18,308,793	1,995,947
1943.....	5,936	10,837,037	1,569,453	1948.....	8,525	22,212,249	2,157,489

<sup>1</sup> Full-time.

<sup>2</sup> Includes wages to part-time employees.

### PART III.—ROAD TRANSPORTATION\*

Since the recent development of highways in Canada has been almost exclusively for the purpose of providing roadbed for motor-vehicle traffic, highways and motor-vehicles are treated as related features of transportation. After an introductory section, which summarizes briefly provincial regulations regarding motor-vehicles and motor traffic, the whole subject of road transportation is dealt with under the headings of roads and highways and motor-vehicles.

#### Section 1.—Provincial Motor-Vehicle and Traffic Regulations†

NOTE.—In this Section, it is obviously impossible to include the great mass of detailed regulations in force in each province. The purpose in view is to provide only the more important general information. The sources of information for detailed regulations for specific provinces are given at pp. 750-753.

**General.**—The licensing of motor-vehicles and the regulation of motor-vehicle traffic lies within the legislative jurisdiction of the Provincial Governments. Regulations that are common to all the provinces are summarized here:—

*Operator's Licences.*—The operator of a motor-vehicle must be over a specified age (usually 16 years) and must carry a licence, obtainable in most provinces only after prescribed qualification tests and renewable annually. Special licences are required for chauffeurs and, in some cases, for those granted licences who have not reached the specified age.

*Motor-Vehicle Regulations.*—In general, all motor-vehicles and trailers must be registered annually, with the payment of specified fees, and must carry two registration plates, one on the front and one on the back of the vehicle (one only for the back, in the case of trailers). A change of ownership of the vehicle must be recorded with the registration authority. However, exception from registration is granted for a specified period (usually at least 90 days) in any year to visiting private vehicles registered in another province or a State that grants reciprocal treatment. Further regulations require a safe standard of efficiency in the mechanism of the vehicle and of its brakes, and provide that equipment include non-glare headlights, a proper rear light, a satisfactory locking device, a muffler, a windshield wiper, and a rear-vision mirror.

*Traffic Regulations.*—In all provinces, vehicles keep to the right-hand side of the road. Everywhere motorists are required to observe traffic signs, lights, etc., placed at strategic points on highways and roads. Speed limits, usually of 50 miles per hour, are in effect; slower speeds are always required in cities, towns and villages, in passing schools and public playgrounds, at road intersections, railway crossings, or at other places or times where the view of the highway for a safe distance ahead is in any way obscured. Motor-vehicles must not pass a street car that has stopped to take on or discharge passengers except where safety zones are provided. Accidents resulting in personal injury or property damage must be reported to a provincial or municipal police officer and any driver involved must not leave the scene of accident until he has rendered all possible aid and disclosed his name to the injured party.

\* Except as otherwise indicated, the material in this Part has been revised in the Transportation Division, Dominion Bureau of Statistics.

† The information in this Section has been revised from material provided by the officials in charge of the administration of motor-vehicle and traffic Acts and Regulations in the individual provinces.



*Penalties.*—Penalties ascend in scale from small fines for minor infractions of any of the regulations to a suspension of the operator's driving permit, impounding of the car, or imprisonment for serious infractions, recklessness, driving without an operator's licence, and especially for attempting to operate a motor-vehicle while intoxicated.

There is such a wide variation in the different provinces regarding the basis of licences and fees, the regulation of public commercial vehicles, details of traffic rules, speed, and the use of motor-vehicles, that it is impossible even to outline them satisfactorily in the space available here.

*Safety Responsibility Legislation.*—All the provinces of Canada, with the exception of Newfoundland, have enacted legislation under this heading which is sometimes referred to as Safety Responsibility Legislation, and at other times as Financial Responsibility Legislation. The following paragraphs give the latest amendments to this Legislation and the authorities responsible for the administration of motor-vehicles.

**Newfoundland.**—*Administration.*—Motor Vehicle Division, Department of Public Works, St. John's. *Legislation.*—The Highway Traffic Act, 1941, and amendments.

**Prince Edward Island.**—Provision was made in the Highway Traffic Act, 1936, for cancellation of the licence of any person unable to satisfy judgment against him arising out of a motor-vehicle accident. The licence is to be reissued only when proof of financial responsibility is made to the Provincial Secretary. In 1946, "Unsatisfied Judgment Fund" legislation was passed whereby the injured party in an automobile accident might receive compensation from this Fund where the person at fault was unable to satisfy the judgment against him. In 1949 a Safety Responsibility Amendment was passed similar to that in force in Manitoba (see pp. 751-752).

*Administration.*—The Provincial Secretary, Charlottetown. *Legislation.*—The Highway Traffic Act (1936, c. 2) and amendments.

**Nova Scotia.**—*Administration.*—Motor Vehicle Branch, Department of Highways and Public Works, Halifax. *Legislation.*—The Motor Vehicle Act (c. 6, 1932) and amendments, and the Motor Carrier Act (R.S.N.S. 1923, c. 78) as amended.

**New Brunswick.**—*Administration.*—Motor Vehicle Division, Department of Public Works, Fredericton. *Legislation.*—The Motor Vehicle Act (1934, c. 20) and amendments.

**Quebec.**—In 1949 the Quebec Government passed an amendment to the Motor Vehicle Act, which provides for the suspension of the driver's licence and registration certificate, for at least three months, of any person proved guilty of driving while under the influence of liquor or narcotics, driving in a dangerous manner or neglecting to stop after an accident or give aid to persons injured in such accident. No licence to drive will be granted for twelve months to a person involved in an accident while driving without a licence. In case of a suit for damages resulting from fault, carelessness or neglect, the driver's licence and registration certificate, or either, may be suspended until judgment has been satisfied. In such case, recovery of licence or certificate may require the furnishing of a guarantee, in the form of insurance, deposit or otherwise, of sufficient financial responsibility to afford reasonable protection to the public against any future accident.

*Administration.*—Motor Vehicle Bureau, Provincial Revenue Offices, Treasury Department, Quebec. *Legislation.*—The Motor Vehicle Act (R.S.Q. 1941, c. 142) and amendments.

**Ontario.**—Safety Responsibility Legislation, or Financial Responsibility Legislation as it is sometimes referred to, came into force in Ontario in September, 1930.

At the 1947 session of the Ontario Legislature, the Highway Traffic Act was amended so as to provide for the automatic suspension of the driver's licence and motor-vehicle permit of: (1) every person convicted of any offence under the Act if any personal injury or property damage occurs in connection therewith; (2) every person convicted of any offence under the Act if the penalty imposed includes suspension of driver's licence or owner's permit; (3) every person convicted of a criminal offence involving the use of a motor-vehicle.

The suspensions remain effective until proof of financial responsibility is filed. The object of this law is to encourage safe driving by imposing this additional penalty on persons convicted of offences arising out of motor-vehicle accidents. Provision is also made for the forfeiture to the Crown of a motor-vehicle operated while the permit for its operation is under suspension. These amendments became effective July 1, 1947.

The Act was also amended to require the payment of all judgments arising out of motor-vehicle accidents either for personal injuries or property damage up to a maximum of \$5,000 for one person or \$10,000 for two persons and \$1,000 for property damage arising out of one accident. If judgments are not satisfied by the judgment debtors, provision is made for their payment out of an Unsatisfied Judgment Fund. The judgment debtor is then prohibited from holding a driver's licence or having a motor-vehicle registered in his name until the judgment debtor repays in full to the Fund the amount paid out, together with interest at 4 p.c. from the date of such payment, and also files proof of ability to satisfy a judgment for \$11,000 which may arise out of any future accidents. This part of the Act applies only to judgments arising out of accidents in Ontario since July 1, 1947.

*Administration.*—Motor Vehicles Branch, Department of Highways, Toronto. *Legislation.*—The Highway Traffic Act (R.S.O. 1937, c. 288) and amendments, the Public Vehicle Act (R.S.O. 1937, c. 289) and the Commercial Vehicle Act (R.S.O. 1937, c. 290).

**Manitoba.**—In 1945, the Financial Responsibility Law of Manitoba was repealed and replaced with new Safety Responsibility Legislation.

Features under this Legislation include the immediate and automatic impounding of any motor-vehicle after an accident if the operator is unable to produce proof of financial responsibility at the time. Impoundment continues until the owner or driver settles any claims for damages or bodily injury sustained, or deposits with the Provincial Treasurer security sufficient to cover any judgment which may be recovered and until the owner of the vehicle has filed proof of financial responsibility for the future.

Driving privileges of financially irresponsible motorists are indefinitely suspended pending settlement of damage claims or deposit of security and the filing of proof of financial responsibility.

A trust fund called the Unsatisfied Judgment Fund provides for payment of judgments for bodily injuries and deaths in cases where the judgment debtor does not pay. This Fund also provides for the victims of hit-and-run motorists.

*Administration.*—Provincial Treasurer, Winnipeg. *Legislation.*—The Highway Traffic Act (R.S.M. 1940, c. 93) and amendments.

**Saskatchewan.**—Financial Responsibility Legislation in this Province was placed on the Statutes in 1933 and provides that, where a judgment is rendered in any court in Canada for damages on account of death or injury to any person or on account of damage to property in excess of \$50 occasioned by a motor-vehicle and the person fails to satisfy the judgment within 30 days from the date upon which it becomes final, the Board shall suspend the operator's or chauffeur's licence issued to the person against whom the judgment is rendered and the registration of every motor-vehicle registered in his name. Judgment must be satisfied before licences are reinstated and the person so liable must give proof of financial responsibility for future motor-vehicle accidents in the amount of \$11,000 for a period of three years.

The Automobile Accident Insurance Act was passed by the Legislature and placed on the Statutes during 1946 and provides collision insurance, personal injury insurance, and public liability and property damage insurance in the amounts as set forth in the said Act. Saskatchewan citizens are provided with insurance against death or personal injury resulting directly from motor-vehicle accidents. Every person is automatically provided with public liability and property damage insurance to the extent of the amount paid for personal injuries or property damage which is payable by the insurance office.

*Administration.*—Treasury Department, Taxation Branch, Highway Traffic Board, Revenue Building, Regina. *Legislation.*—The Vehicles Act (R.S.S. 1945, c. 98).

**Alberta.**—In 1947 the Alberta Legislature passed the Automobile Accident Indemnity Act (later the title was amended to the Motor Vehicle Accident Indemnity Act), the main provisions of which are: the suspension of the licences of all drivers directly or indirectly involved in an accident which results in bodily injury, or in damage to property exceeding \$25 in value, (changed to \$75 in 1949), if proof of financial responsibility on the part of the driver is not forthcoming and; an Unsatisfied Judgment Fund is set up on the basis of a fee of \$1 per year, collected for each licensed motor-vehicle, in addition to the regular registration fee. Action may be taken against the Superintendent of the Fund where a judgment for an amount exceeding \$100 has been obtained following a motor-vehicle accident, if the assets of the judgment debtor are insufficient to meet the award of the court, or in cases where the driver or owner of the motor-vehicle causing the accident is unknown. Minor amendments were made to this legislation in 1948 and 1949.

*Administration.*—Motor Vehicle Branch, Department of the Provincial Secretary, Edmonton, and Alberta Highway Traffic Board, Edmonton. *Legislation.*—The Vehicles and Highway Traffic Act (R.S.A. 1942, c. 275) and amendments, the Public Service Vehicles Act (R.S.A. 1942, c. 276), and Rules and Regulations. The Vehicles and Highway Traffic Act is administered by the Department of the Provincial Secretary, and the Public Service Vehicles Act by the Alberta Highway Traffic Board, Department of Public Works.



**British Columbia.**—Financial Responsibility Legislation, which has been in effect in this Province since 1932, provides for the suspension of driver and motor-vehicle licences on failure to pay judgments, for contravention of certain convictions in connection with speed and for offences under Section 285 of the Criminal Code, etc. These suspensions remain in effect until the party concerned files proof of financial responsibility, which he is required to keep in full force and effect. In 1947, new legislation was enacted that added to the Financial Responsibility Legislation already in effect, providing for the impounding of motor-vehicles that were involved in motor-vehicle accidents, and for which, at such time, a motor-vehicle liability insurance card or a financial responsibility card could not be produced.

*Administration.*—Enforcement of the Motor Vehicle Act, the Highway Act and the Motor Carrier Act is vested in the Commissioner of Provincial Police, Victoria, while the Highway Act is administered by the Minister of Public Works, the Motor Carrier Act by the Public Utilities Commission, and the Motor Vehicle Act by the Superintendent of Motor Vehicles.

**Yukon.** — *Administration.* — Commissioner of Yukon Territory, Dawson, Yukon. Information regarding regulations may also be obtained from the Lands and Development Services Branch, Department of Mines and Resources, Ottawa. *Legislation.*—The Motor Vehicle Ordinance, No. 2, 1947, and amendments.

**Northwest Territories.**—*Administration.*—Director, Lands and Development Services Branch, Department of Mines and Resources, Ottawa. *Legislation.*—The Motor Vehicle Ordinance, assented to Mar. 26, 1941, and amendments.

## Section 2.—Roads and Vehicles

### Subsection 1.—Roads and Highways

The steadily increasing use of motor-vehicles for pleasure and commercial travel has created an insistent demand for good highways and for the development of scenic routes as tourist attractions. Also the widespread ownership of automobiles and trucks in rural areas—according to the 1941 Census there was one motor-vehicle for every 1.8 farms—has brought about a great improvement in secondary rural roads.

The figures of Table 1 include the mileages of all roads under provincial jurisdiction, those in the National Parks, local roads in the Maritime Provinces and Ontario and estimates of local roads in the four western provinces. There are great stretches of country in the northern portions of Quebec, Ontario, the Prairie Provinces and British Columbia with very few people and very few roads, but the southern portions are well supplied. The Alaska Highway, built for military purposes during 1942 and extending 1,600 miles from Fort St. John, B.C., to Fairbanks, Alaska, now serves civilian as well as military traffic. It opens up a vast area of hitherto virgin territory and affords a means of land communication from Alaska through Canada to the United States.

Statistics of urban streets have been collected since 1935 from cities and principal towns; the small municipalities omitted would increase the totals very little. For 1946 the total number of miles of street reported was 14,326, composed of: 3,368 miles of bituminous pavements; 918 miles of portland cement concrete; 2,044 miles

of bituminous surfaces; 3,311 miles of gravel and crushed stone; and 390 miles of other surfaces; making a total of 10,031 miles of surfaced streets and 4,295 miles of earth roads. These figures for urban streets or roads are not included in the table of highway mileage.

### 1.—Classification of Highways, by Provinces, 1946

NOTE.—The date for which the mileage was reported is indicated for each province. The figures for Canada are the sums of the mileages so reported. Urban streets are not included in the figures.

Classification	P.E.I. <sup>1</sup>	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	Mar. 31, 1946	Nov. 30, 1946	Oct. 31, 1945	Mar. 31, 1947	Mar. 31, 1947	Apr. 30, 1947	Mar. 31, 1947	Mar. 31, 1947	Mar. 31, 1945	
	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles
<b>SURFACED ROAD</b>										
Portland cement concrete..	4	7	—	342	2,054	37	—	—	41	2,485
Bituminous pavement.....	205	902	—	3,207	2,476	—	—	—	114	6,904
Bituminous surface.....	—	53	977	1,089	3,524	515	372	735	1,452	8,717
Gravel—crushed stone.....	242	6,590	7,681	19,465	49,777	8,395	11,095	9,469	8,056	122,231 <sup>2</sup>
Other surfaces.....	—	—	—	—	—	—	75	—	47	122
<b>TOTALS, SURFACED ROAD..</b>	<b>451</b>	<b>7,552</b>	<b>8,658</b>	<b>24,103</b>	<b>57,831</b>	<b>8,947</b>	<b>11,542</b>	<b>10,204</b>	<b>9,710</b>	<b>140,459<sup>2</sup></b>
<b>NON-SURFACED ROAD</b>										
Improved earth.....	2,352	3,223	2,670	—	8,789	8,171	77,177	24,730	9,765	136,877
Other earth roads.....	903	4,776	984	16,226	6,381	74,236 <sup>3</sup>	124,259	45,589	2,680	276,034
<b>TOTALS, NON-SURFACED ROAD.....</b>	<b>3,255</b>	<b>7,999</b>	<b>3,654</b>	<b>16,226</b>	<b>15,170</b>	<b>82,407</b>	<b>201,436</b>	<b>70,319</b>	<b>12,445</b>	<b>412,911</b>
<b>Grand Totals.....</b>	<b>3,706</b>	<b>15,551</b>	<b>12,312</b>	<b>40,329</b>	<b>73,001</b>	<b>91,354</b>	<b>212,978</b>	<b>80,523</b>	<b>22,155</b>	<b>553,370<sup>2</sup></b>

<sup>1</sup> 1944 mileage.  
Yukon and N.W.T.

<sup>2</sup> Includes 1,461 miles of gravel road of the Northwest Highway System in

<sup>3</sup> Includes road allowances.

### Subsection 2.—Motor-Vehicles

**Registration.**—Automobiles were registered in Canada for the first time in 1904 and Ontario was the only province to issue licences in that year. New Brunswick began registering cars in 1905; Quebec, Saskatchewan and Alberta in 1906; British Columbia in 1907; Manitoba in 1908; Nova Scotia in 1909; Prince Edward Island in 1913 and Yukon in 1914.

In 1905, only 565 motor-vehicles were registered in Canada but by 1915 the number had risen to 95,284 and by the end of the next decade to 724,048. With the exception of 1931-33 an annual increase was in evidence until 1941 when 1,572,784 motor-vehicles were registered. The number of commercial vehicles continued to increase during the war years but a considerable decline was shown in passenger cars due to restrictions on manufacture and the rationing of tires and gasoline. However, post-war recovery was rapid, registrations reaching a peak in 1948. The total of 2,035,352 registrations included 1,497,409 passenger cars, 499,736 trucks and miscellaneous vehicles, 4,268 buses, and 33,939 motorcycles. New motor-vehicles made available during 1948 totalled 229,489, comprising 152,336 passenger and 77,153 commercial vehicles.

Revenue from motor-vehicle licences, operator permits, etc., amounted to \$51,287,000 in 1948 compared with \$46,013,000 collected by the provinces in 1947.

## 2.—Motor-Vehicles Registered, by Provinces, 1939-48

NOTE.—Registrations given here include passenger cars, trucks, buses, motorcycles, service cars, etc., but not trailers or dealer licences. Figures for 1904-35 are given at p. 668 of the 1937 Year Book; those for 1936-38 at p. 707 of the 1948-49 edition.

Year <sup>1</sup>	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total <sup>1</sup>
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1939.....	8,040	53,008	38,116	213,148	682,891	88,864	119,018	113,702	122,087	1,439,245
1940.....	8,070	57,873	39,000	225,152	709,872	90,932	126,970	120,514	128,044	1,500,829
1941.....	8,015	62,805	41,450	232,149	739,194	96,573	131,545	126,127	134,499	1,572,784
1942.....	7,537	58,872	37,758	222,622	715,380	93,147	130,040	125,482	132,893	1,524,153
1943.....	8,032	59,194	40,205	222,676	691,615	93,494	133,839	127,559	134,691	1,511,845
1944.....	8,412	57,933	39,570	224,042	675,057	93,297	140,992	127,416	135,090	1,502,567
1945.....	8,835	56,699	41,577	228,681	662,719	92,758	140,257	130,153	134,788	1,497,081
1946.....	9,192	62,660	44,654	255,172	711,106	101,090	148,206	138,868	150,234	1,622,463
1947.....	9,948	70,300	51,589	296,547	800,058	112,149	158,512	155,386	179,684	1,835,959
1948.....	11,290	76,319	62,366	335,953	874,933	128,000	167,515	173,950	202,126	2,035,352

<sup>1</sup> Totals include registrations in Yukon and the Northwest Territories.

## 3.—Types of Motor-Vehicles Registered, by Provinces, 1947-48

Province or Territory	Passenger Cars <sup>1</sup>	Commercial Cars, Trucks, etc. <sup>2</sup>	Buses	Motorcycles	Total <sup>1,2</sup>
	No.	No.	No.	No.	No.
<b>1947</b>					
Prince Edward Island.....	7,559	2,319	33	37	9,948
Nova Scotia.....	47,109	22,387	804		70,300
New Brunswick.....	34,611	15,934	313	731	51,589
Quebec.....	215,322	71,369	2,894	6,962	296,547
Ontario.....	645,252	142,297	2,940	9,569	800,058
Manitoba.....	80,201	30,645	185	1,118	112,149
Saskatchewan.....	105,329	52,072	111	1,000	158,512
Alberta.....	105,132	48,373	347	1,534	155,386
British Columbia.....	128,611	46,709	3	4,364	179,684
Yukon and N.W.T.....	1,047	726	3	10	1,786
<b>Totals, 1947.....</b>	<b>1,370,173</b>	<b>432,831</b>	<b>6,826</b>	<b>26,129</b>	<b>1,835,959</b>
<b>1948</b>					
Prince Edward Island.....	8,297	2,918	27	48	11,290
Nova Scotia.....	50,198	24,585	520	1,016	76,319
New Brunswick.....	40,795	20,041	399	1,131	62,366
Quebec.....	237,942	83,954	2,616	11,441	335,953
Ontario.....	698,384	165,337	3	11,212	874,933 <sup>4</sup>
Manitoba.....	91,860	34,420	178	1,542	128,000
Saskatchewan.....	109,718	56,492	126	1,179	167,515
Alberta.....	115,350	56,394	392	1,814	173,950
British Columbia.....	143,675	53,915	3	4,536	202,126
Yukon and N.W.T. <sup>5</sup> .....	1,190	1,680	10	20	2,900
<b>Totals, 1948.....</b>	<b>1,497,409</b>	<b>499,736</b>	<b>4,268</b>	<b>33,939</b>	<b>2,035,352</b>

<sup>1</sup> Includes taxis.

<sup>2</sup> Includes service cars, tractors, etc.

<sup>3</sup> Included with trucks.

<sup>4</sup> Includes 1,549 vehicles and 126 motorcycles of the Department of National Defence carrying permanent plates.

<sup>5</sup> Estimated.



**Apparent Consumption of Automobiles.**—The apparent consumption of automobiles in Canada in any year may be computed by deducting the number exported from the sum of the production and imports. Statistics regarding retail sales and the financing of motor-vehicle sales in Canada are given in Chapter XXI of this volume.

#### 4.—Apparent Supply of New Automobiles, 1939-48

Year	Cars Made for Sale in Canada		Imports <sup>1</sup>		Re-exports of Imported Cars		Apparent Supply <sup>2</sup>	
	Passenger	Commercial	Passenger	Commercial	Passenger	Commercial	Passenger	Commercial
	No.	No.	No.	No.	No.	No.	No.	No.
1939.....	75,145	24,058	16,585	1,699	207	13	91,523	25,744
1940.....	94,633	53,169	15,386	1,633	145	10	109,874	54,792
1941.....	81,943	76,627	2,672	1,036	26	—	84,589	77,663
1942.....	8,596	93,903	327	718	9	2	8,914	94,619
1943.....	—	79,290	21	795	1	163	20	79,922
1944.....	—	66,013	35	3,249	5	33	30	69,229
1945.....	1,866	47,459	236	1,855	3	19	2,099	49,295
1946.....	63,501	41,318	18,642	3,600	6	72	82,137	44,846
1947.....	128,243	69,152	35,570	7,293	26	4	163,787	70,441
1948.....	135,316	73,582	17,037	3,575	17	4	152,336	77,153

<sup>1</sup> Does not include repatriated Armed Forces vehicles.  
sold to public.

<sup>2</sup> Does not include military vehicles

**Finances of Road Transportation.**—The cost of road transportation to the people of Canada may be summarized under the following headings: expenditures on roads and highways; expenditures of individuals and corporations on owned motor-vehicles; expenditures for freight and passenger services rendered by motor-vehicle public carriers such as taxi, bus and motor-transport companies; and expenditures on garages, service stations, etc. Since expenditures on roads and highways are made almost entirely by governmental bodies, fairly complete statistics are available regarding them but, owing to the tremendous number of individuals and organizations that would have to be canvassed and the difficulties involved, complete statistics are not available under the other headings. Sales of gasoline are given at p. 762 and revenues of motor-carriers at p. 759.

**Expenditures on Roads and Highways.**—Roads in Canada, except in the Territories and the National Parks are under the jurisdiction of provincial and municipal authorities.

Provincial and municipal expenditures were sharply curtailed during the war years and a considerable backlog of essential repair, improvement and expansion work was accumulated. In 1946 approximately \$144,470,000 was expended on construction, maintenance and general expenditures for roads and bridges and in 1947 and 1948 outlays were much larger. Unit costs per mile of new construction increased greatly over pre-war levels and had a restrictive effect on the planned expansion of first class roads. However, the improvement and completion of the Trans-Canada Highway as a main artery of interprovincial travel will shortly be proceeded with as a joint responsibility of federal and provincial authorities.

### 5.—Construction, Maintenance and General Expenditures on Rural Highways, Bridges and Ferries, by Provinces, 1943-46

NOTE.—Expenditures are for the respective provincial fiscal years. Figures for each year since 1931 are given in the corresponding tables of previous Year Books beginning with the 1937 edition.

Item and Province	1943	1944	1945	1946
	\$	\$	\$	\$
<b>Construction—</b>				
Prince Edward Island.....	141,175	388,538	486,759	587,309
Nova Scotia.....	192,109	445,349	554,078	3,834,392
New Brunswick.....	795,852	2,845,019	2,820,685	7,032,089
Quebec.....	10,843,890	13,153,874	13,916,204	24,894,585
Ontario.....	2,482,488	3,505,222	4,928,485	24,262,557
Manitoba.....	25,334	118,197	596,680	2,143,505
Saskatchewan.....	1,733,860	2,067,989	2,346,936	4,372,502
Alberta.....	1,449,042	2,313,732	2,586,941	6,205,275
British Columbia.....	7,230,557	6,667,429	3,583,829	5,887,779
Yukon and N.W.T.....	—	—	370,537	1,369,060
<b>Totals, Construction.....</b>	<b>24,894,307</b>	<b>31,505,349</b>	<b>32,191,134</b>	<b>80,589,053</b>
<b>Maintenance—</b>				
Prince Edward Island.....	319,079	569,144	680,082	820,088
Nova Scotia.....	2,679,878	3,025,357	3,933,298	3,936,517
New Brunswick.....	1,697,931	2,684,747	2,950,899	4,144,259
Quebec.....	8,339,542	8,659,753	10,160,318	11,142,062
Ontario.....	18,374,484	17,601,135	21,118,003	24,415,012
Manitoba.....	1,062,455	1,246,130	1,468,625	1,189,168
Saskatchewan.....	1,071,410	1,202,737	1,420,260	1,784,940
Alberta.....	1,661,213	1,532,732	4,562,050	5,820,851
British Columbia.....	2,593,521	1,036,867	2,697,359	2,931,839
Yukon and N.W.T.....	1,500	—	4,621	2,062,000
<b>Totals, Maintenance.....</b>	<b>37,801,013</b>	<b>37,571,893<sup>1</sup></b>	<b>48,995,515</b>	<b>58,246,736</b>
<b>Administration and General—</b>				
Prince Edward Island.....	40,012	139	56,673	58,671
Nova Scotia.....	326,739	323,276	341,948	442,939
New Brunswick.....	56,300	63,978	72,418	573,806
Quebec.....	995,430	1,133,170	1,273,144	1,564,402
Ontario.....	624,860	507,041	502,950	800,679
Manitoba.....	207,621	248,522	289,683	311,227
Saskatchewan.....	125,048	125,647	145,143	165,187
Alberta.....	9,298	6,473	8,421	22,461
British Columbia.....	14,369	360,696	277,532	686,319
Yukon and N.W.T.....	—	—	10,196	1,007,714
<b>Totals, Administration and General.....</b>	<b>2,399,677</b>	<b>2,774,099<sup>1</sup></b>	<b>2,978,108</b>	<b>5,633,405</b>
<b>Grand Totals.....</b>	<b>65,094,997</b>	<b>71,851,341<sup>1</sup></b>	<b>84,164,757</b>	<b>144,469,194</b>
<b>Distribution of all Expenditures—<sup>2</sup></b>				
Federal.....	7,132,612	3,917,448	1,073,581 <sup>2</sup>	6,293,419
Provincial.....	52,870,362	62,175,873	73,536,267	126,611,268
Municipal.....	4,626,330	5,514,832	9,441,779	11,266,811
Other <sup>3</sup> .....	465,693	243,188	113,130	297,696

<sup>1</sup> Includes expenditures in the Northwest Territories.

<sup>2</sup> Net expenditures and subsidies.

<sup>3</sup> Includes payments from railways *re* elimination of grade crossings, etc.

**Provincial Government Revenues from Motor-Vehicles.**—The taxation of motor-vehicles, garages, chauffeurs, etc., is an important source of provincial government income. In every province licences or permits, duly issued by the provincial authorities, are required for: motor-vehicles of all kinds, trailers, operators or drivers, paid chauffeurs, dealers, garages and gasoline and service stations. A sales tax on gasoline is also levied by each province and to Mar. 31, 1947, there was also a federal tax of 3 cents but this was withdrawn on that date and for the most part provincial taxes were increased to absorb the federal rate. The rates in effect in 1949 are: for each of the three Maritime Provinces 13 cents; Quebec

and Ontario 11 cents; Manitoba 9 cents; Saskatchewan 10 cents; Alberta 9 cents; British Columbia 10 cents and Yukon 6 cents. The more important sources from which provincial revenues from motor-vehicles are derived are shown in Table 6. Federal Government revenues from import duties, excise and sales taxes are not included.

#### 6.—Provincial Revenues from the Registration and Operation of Motor-Vehicles, 1947 and 1948

NOTE.—Figures are for the respective provincial fiscal years, see Table 1, p. 754.

Province or Territory	Registration Licences				Operator and Chauffeur Licences	Tax on Bus and Truck Operators	Gasoline Tax	Total, Including Miscellaneous Revenue
	Passenger Car	Truck and Bus	Motor-cycle	Dealer				
1947	\$	\$	\$	\$	\$	\$	\$	\$
P. E. Island.....	119,507	86,668	200	1,181	8,961	5,275	698,303	923,727
Nova Scotia.....	868,241	1,114,088	<sup>1</sup>	10,955	207,980	100,406	5,179,783	7,691,378
New Brunswick...	697,179	1,078,471	4,642	1,795	167,478	40,000	4,200,080	6,230,423
Quebec.....	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	25,568,671	37,068,671 <sup>3</sup>
Ontario.....	5,587,923	6,177,529	11,229	29,607	1,386,503	863,505	47,420,015	62,398,735
Manitoba.....	988,347	434,302	4,465	13,320	190,977	325,437	4,592,510	6,624,865
Saskatchewan.....	1,417,387	523,490	5,891	42,284	241,669	309,014	6,399,303	9,514,032
Alberta.....	1,704,607	1,110,708	6,042	22,458	258,060	1,116,529	7,657,915	11,965,649
British Columbia..	2,758,484	1,651,294	29,612	19,170	324,425	248,170	9,295,743	14,585,787
Yukon.....	17,697	676	4	—	2,221	981	50,497	72,377
<b>Totals, 1947.....</b>	<b>14,159,372</b>	<b>12,177,226</b>	<b>62,085</b>	<b>140,770</b>	<b>2,788,274</b>	<b>3,009,317</b>	<b>111,062,820</b>	<b>157,075,644</b>
1948								
P. E. Island.....	132,061	104,004	288	1,227	9,640	4,316 <sup>2</sup>	783,913	1,040,821
Nova Scotia.....	949,889	1,279,755	<sup>1</sup>	11,424	216,981	94,687	5,869,246	8,645,629
New Brunswick...	785,673	1,284,315 <sup>3</sup>	7,182	2,024	181,765	52,000 <sup>4</sup>	5,191,864	7,576,733
Quebec.....	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	29,590,885	42,869,754
Ontario.....	5,613,422	6,383,518	10,729	31,973	1,383,204	954,723	52,566,951	68,435,006
Manitoba.....	1,132,540	496,726	5,881	13,220	201,760	370,503	4,890,086	7,189,771
Saskatchewan.....	1,520,532	652,502	5,769	39,718	237,176	298,769	6,641,867	10,015,294
Alberta.....	1,912,473	1,545,763	6,856	25,520	284,275	1,094,582	8,577,567	13,540,501
British Columbia..	3,138,083	1,953,957	26,369	23,197	362,078	293,108	10,146,654	16,200,465
Yukon and N.W.T.	29,883	..	..	..	2,570	..	71,954	104,407
<b>Totals, 1948.....</b>	<b>15,214,556</b>	<b>13,700,540</b>	<b>63,074</b>	<b>148,303</b>	<b>2,879,449</b>	<b>3,162,688</b>	<b>124,330,987</b>	<b>175,618,381</b>

<sup>1</sup> Included with miscellaneous.

<sup>2</sup> Details for Quebec, were not supplied by the Province.

<sup>3</sup> Estimated.

<sup>4</sup> Federal tax additional: amounted to \$8,605,249, Jan.-Mar., 1947.

**Motor-Carriers.\***—The lack of statistical information regarding traffic on the highways led to the institution of a census of motor-carriers in 1941. The carriers are divided into two classes: passenger and freight. Each of these is subdivided into (a) carriers with revenues less than \$20,000, and (b) carriers with revenues of \$20,000 or over. Bus companies handling urban traffic exclusively are compiled as a class. Many street-railway systems operate motor-buses, but the statistics of such systems are not included here; they are included in electric-railway statistics. Licensed carriers doing highway construction work, building air fields, etc., are excluded from the compilations. Taxi operators and urban delivery trucks are also excluded, except where their operations include interurban business. Carriers operating as both passenger and freight carriers are classed as passenger or freight according to the preponderance of the revenue. The passenger revenue of trucking companies and the freight revenue of bus companies are small percentages of their total revenues.

\* Statistics are given in more detail in the annual report, "Motor Carriers, Freight-Passenger", obtainable from the Dominion Statistician, Ottawa.



**7.—Capital, Revenues, Employees and Equipment of Motor-Carriers, 1946 and 1947**

NOTE.—Large freight carriers include those with annual revenues of \$20,000 or over; small freight carriers those with annual revenues of from \$8,000 to \$20,000. Firms predominantly warehousing are excluded.

Item	Freight Carriers				Passenger Carriers		Totals	
	Large		Small					
	1946 <sup>a</sup>	1947	1946 <sup>a</sup>	1947	1946 <sup>a</sup>	1947	1946 <sup>a</sup>	1947
Carriers.....No.	467	510	386	481	463	458	1,316	1,449
Investments—								
Land, buildings, equipment, etc. \$	24,608,756	30,301,546	3,100,999	4,351,800	40,806,394	53,025,677	68,516,149	87,679,023
Revenue—								
Freight.....\$	41,576,842	51,593,051	4,788,522	5,798,448	600,668	753,865	46,966,032	58,145,364
Passenger—								
Inter-city and rural.....\$	163,349	184,325	—	—	37,326,799	38,427,861	37,490,148	38,612,186
City.....\$	242	—	—	—	10,124,042	11,185,550	10,124,284	11,185,550
Miscellaneous..\$	1,725,923	3,661,047	228,256	270,255	2,031,990	1,986,048	3,986,169	5,917,350
Totals, Revenue \$	43,466,356	55,438,423	5,016,778	6,068,703	50,083,499	52,353,324	98,566,633	113,860,450
Working proprietors.....No.	257	253	353	437	278	275	888	965
Employees—								
As at July 15..No.	10,726	11,694	1,122	1,212	8,250	8,762	20,098	21,668
As at Dec. 15 “	10,582	11,507	1,088	1,137	8,201	8,454	19,871	21,098
Total wages...\$	16,689,306	21,068,173	1,313,569	1,495,499	14,786,656	16,580,094	32,789,531	39,143,766
Equipment—								
Trucks.....No.	4,828	5,211	1,106	1,290	216	210	6,150	6,711
Tractor, semi-trailer units.. “	2,192	2,448	93	96	27	22	2,312	2,566
Trailers..... “	1,267	1,675	58	69	15	24	1,340	1,768
Buses..... “	40	52	7	7	3,777	4,066	3,824	4,125

Table 8 shows the freight and passengers carried by motor-carriers in 1946 and 1947. Traffic data were not available for the majority of the small operators. Many truck operators failed to report tons of freight carried and others reported only estimates; consequently these data are not very informative. A difficulty in compiling weights, which is quite understandable, is that much traffic is carried on a load basis and not on a weight basis. Records of passengers appear to be fairly complete, possibly because tickets are sold and accounted for, and the unit is not so complex as for freight carried.

**8.—Traffic Carried by Motor-Carriers, 1946 and 1947**

NOTE.—Large freight carriers include those with annual revenues of \$20,000 or over; small freight carriers those with annual revenues of from \$8,000 to \$20,000. Firms predominantly warehousing are excluded.

Item	Freight Carriers				Passenger Carriers		Totals	
	Large		Small					
	1946	1947	1946	1947	1946	1947	1946	1947
Passengers—								
Regular Routes—								
Inter-city and rural.....No.	441,720	197,813	—	—	101,708,443	106,718,144	102,150,163	106,915,957
City..... “	—	—	—	—	153,770,931	170,273,634	153,770,931	170,273,634
Special and Chartered Service—								
Inter-city and rural.....No.	—	4,428	—	—	4,977,664	3,515,962	4,977,664	3,520,391
City..... “	—	—	—	—	142,918	941,455	142,918	941,455
Totals, Passengers.....No.	441,720	202,241	—	—	269,599,956	281,449,196	261,041,676	281,651,437
Totals, Freight, Inter-city and Rural.....ton	10,146,356	11,587,021	1,632,762	1,357,056	112,124	69,634	11,891,242	13,013,711

**Motor-Vehicle Accidents.**—Motorists are required to report accidents but comprehensive statistics are not available for all provinces. The Health and Welfare Division of the Bureau of Statistics compiles statistics on all deaths from motor-vehicle accidents and these are shown in Table 9. A direct comparison of such statistics between the provinces is of little value due to differences in size, population, motor-vehicle density, etc., but, to put them on somewhat the same basis, the average number of deaths per 10,000 registered motor-vehicles has also been tabulated. These data still give no weight to differences in use of motor-vehicles, differences in climate, roads, tourist cars, etc., all of which are factors in accidents.

Table 10 shows the number of persons killed or injured in automobile accidents as reported by the motor-vehicle branches of the provincial governments. It is quite possible that the latter reported some persons as injured who subsequently died from injuries and these would be included in the fatalities of the vital statistics shown in Table 9; also accidents that occurred late in December and resulted in deaths would be charged to December by the provincial authorities but to January of the next year in the vital statistics. Consequently, the figures of fatalities of Tables 9 and 10 are not in complete agreement.

### 9.—Deaths Resulting from Motor-Vehicle Accidents, by Provinces, 1939-48

NOTE.—This table was compiled in the Health and Welfare Division, Dominion Bureau of Statistics. Figures for the years 1926-35 will be found at p. 578 of the 1941 Year Book and those for 1936-38 at p. 712 of the 1948-49 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
DEATHS										
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1939.....	7	84	92	390	682	63	65	81	120	1,584
1940.....	10	104	81	434	746	87	59	72	116	1,709
1941.....	9	104	89	485	835	79	45	78	128	1,852
1942.....	8	72	52	363	610	52	58	62	132	1,409
1943.....	5	90	70	392	563	44	34	84	155	1,437
1944.....	11	73	56	406	525	53	43	80	124	1,372
1945.....	8	76	90	424	637	67	58	71	125	1,556
1946.....	4	84	69 <sup>r</sup>	482 <sup>r</sup>	729 <sup>r</sup>	94	70 <sup>r</sup>	91 <sup>r</sup>	158 <sup>r</sup>	1,781 <sup>r</sup>
1947.....	15	83	104	476	753	77	51	103	207	1,869
1948 <sup>p</sup> .....	5	96	118	599	790	81	87	130	193	2,099
DEATHS PER 10,000 REGISTERED MOTOR-VEHICLES										
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1939.....	8.71	15.85	24.14	18.30	9.99	7.09	5.46	7.12	9.83	11.01
1940.....	12.39	18.49 <sup>r</sup>	20.77	19.28	10.74 <sup>r</sup>	9.57	4.65	6.05 <sup>r</sup>	9.06	11.48 <sup>r</sup>
1941.....	11.23	16.56	21.47	20.89	11.30	8.18	3.43	6.18	9.52	11.78
1942.....	10.61	12.23	13.77	16.31	8.53	5.58	4.46	4.94	9.93	9.24
1943.....	6.23	15.20	17.41	17.60	8.14	4.71	2.54	6.59	11.51	9.51
1944.....	13.08	12.60	14.15	18.12	7.79	5.68	3.05	6.28	9.18	9.14
1945.....	9.05	13.40	21.65	18.41	9.61	7.22	4.14	5.46	9.27	10.39
1946.....	4.35	13.40	15.23	18.89 <sup>r</sup>	10.25 <sup>r</sup>	9.30	4.72 <sup>r</sup>	6.55 <sup>r</sup>	10.52 <sup>r</sup>	10.98 <sup>r</sup>
1947.....	15.08	11.81	20.16	15.94	9.49	6.87	3.22	6.63	11.52	10.19
1948 <sup>p</sup> .....	4.43	12.58	18.92	17.86	9.03	6.33	5.20	7.47	9.55	10.31

## 10.—Motor-Vehicle Accidents, 1947

NOTE.—Figures are as reported by provincial motor-vehicle authorities for the calendar year.

Item	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
<b>Accidents</b>										
Fatal—										
Resulting in death of one or more persons..	14	77	91	372	664	68	53	94	178	1,611
Non-fatal—										
Resulting in injury to one or more persons..	116	765	1,686 <sup>1</sup>	5,867	9,165	1,286	1,282	1,360	3,232	23,073 <sup>2</sup>
Resulting in property damage only.....	260	1,436		12,955	12,464	4,654	3,009	3,940	9,646	48,364 <sup>2</sup>
<b>Totals, Accidents.....</b>	<b>390</b>	<b>2,278</b>	<b>1,777</b>	<b>19,194</b>	<b>22,293</b>	<b>6,008</b>	<b>4,344</b>	<b>5,394</b>	<b>13,056</b>	<b>74,738<sup>3</sup></b>
<b>Persons Killed</b>										
Pedestrians.....	2	25	32	190	284	29	11	31	72	677 <sup>3</sup>
Motorcyclists (drivers and passengers).....	—	2	—	13	30	3	2	3	12	65
Drivers of other motor-vehicles.....	2	20	57	94	178	33	22	25	43	417
Passengers and attendants of other motor-vehicles.....	9	34		95	206		15	36	54	506
Drivers and other occupants of horse-drawn vehicles.....	—	1	—	2	4	3	1	—	—	11
Pedal cyclists.....	—	4	2	21	32	2	2	2	10	75
Other persons.....	1	—	—	—	—	—	1	—	6	8
<b>Totals, Persons Killed</b>	<b>14</b>	<b>86</b>	<b>91</b>	<b>415</b>	<b>734</b>	<b>70</b>	<b>54</b>	<b>97</b>	<b>197</b>	<b>1,759<sup>3</sup></b>
<b>Persons Injured</b>										
Pedestrians.....	11	309	185	2,799	3,082	450	207	207	1,004	8,257 <sup>3</sup>
Motorcyclists (drivers and passengers).....	—	13	1	215	515	50	60	88	247	1,188
Drivers of other motor-vehicles.....	48	254	364	1,196	3,167	827	540	461	921	7,414
Passengers and attendants of other motor-vehicles.....	57	410		3,388	5,559		1,006	852	2,003	13,639
Drivers and other occupants of horse-drawn vehicles.....	4	5	1	181	69	27	29	9	—	324
Pedal cyclists.....	1	33	1	515	664	145	76	76	266	1,776
Other persons.....	2	—	—	—	—	1	24	13	44	84
<b>Totals, Persons Injured.....</b>	<b>123</b>	<b>1,024</b>	<b>549</b>	<b>8,294</b>	<b>13,056</b>	<b>1,500</b>	<b>1,942</b>	<b>1,706</b>	<b>4,485</b>	<b>32,682<sup>3</sup></b>
<b>Property Damage...\$</b>	<b>44,404</b>	<b>450,165</b>	<b>280,558</b>	<b>..</b>	<b>5,242,069</b>	<b>518,129</b>	<b>947,581</b>	<b>982,728</b>	<b>2,002,855</b>	<b>10,468,939<sup>4</sup></b>

<sup>1</sup> Not analysed by personal injury and property damage.<sup>2</sup> Excludes New Brunswick.<sup>3</sup> Includes four accidents in the Northwest Territories—one pedestrian killed and three injured.<sup>4</sup> Total for provinces reporting.

**Gasoline Consumption.**—All provinces require retail sales of gasoline to be reported and a tax is imposed on all gasoline consumed by motor-vehicles using the highways and streets and also on that used for an increasing number of other purposes. However, the taxable gasoline is still largely consumed by motor-vehicles and indicates, in a general way, the increase or decrease in their use. Net sales are the differences between the total or gross sales reported and the quantities on which the tax is refunded in whole or in part, or on which the tax is not imposed at the time of sale.



Sales during the war years were, of course, materially affected by rationing, and large increases have followed the removal of restrictions.

### 11.—Sales of Gasoline, by Provinces, 1943-48

Province	1943	1944	1945	1946 <sup>r</sup>	1947	1948
	gal.	gal.	gal.	gal.	gal.	gal.
P. E. Island.....	7,881,403	9,295,639	4,715,743	5,945,412	6,963,412	7,288,125
Nova Scotia.....	42,465,349	43,462,061	37,727,413	44,571,678	51,647,756	53,136,982
New Brunswick.....	27,255,758	28,077,021	29,175,358	43,320,383	49,935,462	54,186,447
Quebec.....	147,048,452	178,879,214	168,304,460	218,008,872	247,467,957	280,857,736
Ontario.....	309,487,964	315,976,426	323,814,957	451,251,989	501,433,196	562,530,157
Manitoba.....	63,375,584	70,399,123	56,119,024	72,402,422	83,145,966	90,601,589
Saskatchewan.....	104,175,400	119,840,189	118,463,733	136,065,534	142,368,203	147,446,058
Alberta.....	114,969,882	120,159,267	102,753,583 <sup>1</sup>	143,650,095 <sup>1</sup>	171,112,439 <sup>1</sup>	190,608,360 <sup>1</sup>
British Columbia.....	86,932,371	84,383,083	74,621,447	97,353,294	117,497,292	130,909,076
<b>Totals, Gross Sales..</b>	<b>903,592,163</b>	<b>970,472,023</b>	<b>915,695,718</b>	<b>1,212,599,679</b>	<b>1,371,571,683</b>	<b>1,517,564,530</b>
Refunds and exemp- tions.....	373,747,304	395,615,510	253,079,186	213,314,760	250,217,946	286,829,077
<b>Totals, Net Sales.....</b>	<b>529,844,859</b>	<b>574,856,513</b>	<b>662,616,532</b>	<b>999,284,919</b>	<b>1,121,353,737</b>	<b>1,230,735,453</b>

<sup>1</sup> Not strictly comparable with the other provinces.

## PART IV.—WATERWAYS\*

**The Canada Shipping Act.**—Legislation regarding all phases of shipping is consolidated under the Canada Shipping Act (c. 44, 1934). The Act is a sequel to the passage of the Statute of Westminster in 1931, under which the Parliament of Canada accepted full responsibility for the regulation of Canadian shipping. The Canada Shipping Act is a comprehensive piece of legislation and constitutes, in fact, the incorporation in the shipping law of Canada of features of international agreements and of British and previous Canadian legislation. A brief summary of the Act is given at pp. 681-683 of the 1938 Year Book.

### Section 1.—Equipment, Facilities and Traffic

The developments and equipment to facilitate water traffic are classified under the sub-headings of shipping, aids to navigation, canals and harbours. Subsection 5 is added giving figures of administrative activities regarding pilotage service, steamship inspection and personnel shipped and discharged.

#### Subsection 1.—Shipping

Since all waterways including canals and inland lakes and rivers are open on equal terms, except in the case of the coasting trade, to the shipping of all countries of the world, the commerce of Canada is by no means entirely dependent upon Canadian shipping. However, a large part of the inland and coast-wise traffic is carried in ships of Canadian registry.

**Canadian Registry.**—Under Part I of the Canada Shipping Act, every ship that falls under the definition of 'British Ship' given in Sect. 6 of the Act and is controlled as to management and use in Canada must, unless registered elsewhere in the Commonwealth, be registered in Canada. An exception is made in the case of ships not exceeding 10 tons register and engaged solely in coastal or inland navi-

\* Information and statistics dealing with this subject have been supplied as follows: aids to navigation, canals, harbours, administrative services, and marine services, by the Department of Transport and the National Harbours Board; part of the financial statistics, by the Department of Public Works; shipping subsidies by the Director of Subsidized Steamship Services, Canadian Maritime Commission; Panama Canal, by the Governor of the Panama Canal Zone; other canal traffic and statistics of shipping, by the Transportation Division, Dominion Bureau of Statistics.

gation. A ship (whatever her qualification for British registry) that is not registered in any part of the Commonwealth, is not entitled to the privileges accorded to British ships. Vessels about to be built *may* be recorded, and vessels being built or equipped *must* be recorded, by a registrar of British ships under the Act.

For a record of the number and tonnage of ships engaged in the carrying trade of Canada, see Table 2 and pp. 764, 769 and 771. The tables are included there under traffic statistics because they relate more directly to traffic and services than merely to the shipping available. For an account of the shipping services operated by the Federal Government, see pp. 775-777.

### 1.—Vessels on Canadian Shipping Registry, by Provinces, as at Dec. 31, 1944-48

NOTE.—Figures for 1935-43 are given in the corresponding tables of previous Year Books beginning with the 1941 edition.

Province or Territory	1944		1945		1946		1947		1948	
	No.	Net Tons	No.	Net Tons	No.	Net Tons	No.	Net Tons	No.	Net Tons
P.E. Island.....	85	4,925	80	4,719	70	4,580	74	8,384	102	8,459
Nova Scotia.....	2,371	52,274	2,573	51,747	2,842	115,780	3,155	126,829	3,376	179,601
New Brunswick...	915	31,421	639	29,100	898	35,094	960	38,189	975	38,705
Quebec.....	1,326	896,795	1,326	917,112	1,260	615,539	1,326	652,234	1,395	718,579
Ontario.....	1,208	349,223	1,221	358,459	1,256	365,464	1,367	380,426	1,498	392,269
Manitoba.....	112	11,441	110	11,407	110	11,407	106	11,066	124	14,470
Saskatchewan.....	2	201	2	201	1	147	1	147	1	147
British Columbia...	3,335	294,759	3,455	296,127	3,617	449,148	3,925	488,432	4,113	490,858
Yukon.....	15	4,259	15	4,259	16	4,296	17	4,324	14	3,615
<b>Totals.....</b>	<b>9,369</b>	<b>1,645,298</b>	<b>9,421</b>	<b>1,673,131</b>	<b>10,070</b>	<b>1,601,455</b>	<b>10,931</b>	<b>1,710,031</b>	<b>11,598</b>	<b>1,846,703</b>

**Shipping Traffic.**—A brief description of the early development of Canadian shipping is given at pp. 597-598 of the 1941 edition of the Year Book. Complete statistics, comparable with those given for the railways, showing all the freight carried by water, are not available. To obtain a record of the traffic handled by small independent coasting vessels would be difficult. However, there is a record of the number and tonnage of ships calling at all ports at which there are customs collectors and of cargoes of vessels trading between Canadian and foreign ports. Each vessel departing from port makes a statistical report which is forwarded to the Dominion Bureau of Statistics and from these reports compilations of shipping statistics are made.

Reports are not made for vessels of less than 10 registered net tons and the tonnage of tugs is the gross ton and not the net ton used for cargo vessels. Fishing vessels are not required by customs regulations to report when operating from certain ports; consequently, the data are not on the same basis as data for cargo vessels.

### 2.—Vessels Entered at Canadian Ports, 1941-48

NOTE.—Figures for the years ended Mar. 31, 1929-35 are given at p. 597 of the 1941 Year Book and for 1936-40 at p. 733 of the 1948-49 edition.

Year	In Foreign Service <sup>1</sup>		In Coasting Service		Totals	
	Vessels	Net Tons Registered	Vessels	Net Tons Registered	Vessels	Net Tons Registered
	No.	No.	No.	No.	No.	No.
1941.....	26,203	31,452,400	77,592	48,111,082	103,795	79,563,482
1942.....	24,066	25,640,763	73,366	43,990,764	97,432	69,631,527
1943.....	22,901	26,345,562	65,066	40,300,778	87,967	66,646,340
1944.....	23,786	28,356,681	64,999	43,776,497	88,785	72,133,178
1945.....	24,431	29,655,984	65,410	48,098,201	89,841	77,754,185
1946.....	26,461	30,367,071	67,014	45,559,014	93,475	75,926,085
1947.....	27,868	35,926,095	73,401	51,766,383	101,269	87,692,478
1948.....	31,138	39,443,055	75,141	52,453,382	106,279	91,896,437

<sup>1</sup> Sea-going and inland international.

## 3.—Vessels Entered at Each of the Principal Canadian Ports, 1947

NOTE.—For details of shipping at all ports in Canada, see "Shipping Report" of the Dominion Bureau of Statistics.

Province and Port	In Foreign Service <sup>1</sup>		In Coasting Service		Totals	
	Vessels	Net Tons Registered	Vessels	Net Tons Registered	Vessels	Net Tons Registered
	No.	No.	No.	No.	No.	No.
<b>Prince Edward Island—</b>						
Charlottetown.....	25	24,713	101	39,070	126	63,783
<b>Totals, Prince Edward Island<sup>2</sup>....</b>	<b>62</b>	<b>35,238</b>	<b>237</b>	<b>68,137</b>	<b>299</b>	<b>103,375</b>
<b>Nova Scotia—</b>						
Digby.....	67	65,850	436	623,558	503	689,406
Halifax.....	871	2,457,805	683	677,440	1,554	3,135,245
North Sydney.....	1,128	287,096	911	157,898	2,039	444,994
Sydney.....	302	815,898	553	560,626	855	1,376,524
Yarmouth.....	389	146,679	405	22,225	794	168,904
<b>Totals, Nova Scotia<sup>2</sup>.....</b>	<b>4,693</b>	<b>4,730,287</b>	<b>6,578</b>	<b>2,501,628</b>	<b>11,271</b>	<b>7,231,915</b>
<b>New Brunswick—</b>						
Campobello.....	757	11,041	—	—	757	11,041
Saint John.....	482	1,391,153	1,078	979,873	1,560	2,371,026
<b>Totals, New Brunswick<sup>2</sup>.....</b>	<b>5,954</b>	<b>1,672,197</b>	<b>2,934</b>	<b>1,387,268</b>	<b>8,888</b>	<b>3,059,465</b>
<b>Quebec—</b>						
Baie Comeau.....	45	107,643	680	246,165	725	353,808
Montreal.....	1,652	4,046,052	2,359	2,750,597	4,011	6,796,649
Port Alfred.....	288	847,208	174	637,805	462	1,485,013
Quebec.....	201	522,227	2,343	1,994,895	2,544	2,517,122
Three Rivers.....	176	328,315	1,667	1,327,372	1,843	1,655,687
<b>Totals, Quebec<sup>2</sup>.....</b>	<b>2,648</b>	<b>6,118,761</b>	<b>9,963</b>	<b>8,006,173</b>	<b>12,611</b>	<b>14,124,934</b>
<b>Ontario—</b>						
Amherstburg.....	521	398,303	64	42,033	585	440,336
Cobourg.....	653	2,130,051	47	34,201	700	2,164,252
Cornwall.....	38	46,076	356	365,587	394	411,663
Fort William.....	342	1,088,478	754	1,700,694	1,096	2,789,172
Hamilton.....	305	1,132,055	555	597,675	860	1,729,730
Kingston.....	486	335,021	442	604,842	928	939,863
Midland.....	82	248,766	271	775,823	353	1,024,589
Port Arthur.....	364	862,842	1,146	3,327,298	1,510	4,190,140
Port Colborne.....	136	377,287	337	704,706	473	1,081,993
Port McNicoll.....	3	9,611	230	650,814	233	660,425
Prescott.....	406	532,936	287	371,441	693	904,377
St. Catharines.....	29	61,042	179	122,315	208	183,357
Sarnia.....	453	985,376	675	1,128,027	1,128	2,113,403
Sault Ste. Marie.....	570	1,971,642	448	800,998	1,018	2,772,640
Thorold.....	128	286,501	402	564,590	530	851,091
Toronto.....	725	1,548,971	1,571	1,623,945	2,296	3,172,916
Windsor.....	335	693,435	374	563,451	709	1,256,886
<b>Totals, Ontario<sup>2</sup>.....</b>	<b>7,577</b>	<b>15,370,421</b>	<b>10,512</b>	<b>16,179,723</b>	<b>18,089</b>	<b>31,550,144</b>
<b>Manitoba (Churchill).....</b>	<b>16</b>	<b>63,953</b>	<b>—</b>	<b>—</b>	<b>16</b>	<b>63,953</b>
<b>British Columbia—</b>						
Nanaimo.....	382	88,159	3,331	2,577,153	3,713	2,665,312
New Westminster.....	424	578,803	2,783	1,814,180	3,207	2,392,983
Ocean Falls.....	28	77,169	1,134	709,008	1,162	786,177
Port Alberni.....	55	81,501	654	569,981	709	651,482
Powell River.....	145	104,328	3,759	1,368,090	3,904	1,472,418
Prince Rupert.....	1,412	327,277	1,887	652,316	3,299	979,593
Union Bay.....	18	48,055	751	367,032	769	415,087
Vancouver.....	1,719	3,733,413	21,360	9,782,639	23,079	13,516,052
Victoria.....	1,481	2,465,193	3,487	3,558,356	4,968	6,023,549
<b>Totals, British Columbia<sup>2</sup>.....</b>	<b>6,912</b>	<b>7,930,858</b>	<b>43,095</b>	<b>23,607,608</b>	<b>50,007</b>	<b>31,538,466</b>
<b>Yukon and Northwest Territories....</b>	<b>6</b>	<b>4,380</b>	<b>120</b>	<b>72,965</b>	<b>126</b>	<b>77,345</b>
<b>Grand Totals.....</b>	<b>27,868</b>	<b>35,926,095</b>	<b>73,439</b>	<b>51,823,502</b>	<b>101,307</b>	<b>87,749,597</b>

<sup>1</sup> Sea-going and inland international.<sup>2</sup> Includes other small ports not shown separately.



Vessels in coasting service and vessels fishing in Canadian waters are not required by customs regulations to report any details of cargoes loaded or unloaded so that cargo data are available only for vessels in foreign service. The cargoes are not cargoes on board but cargoes unloaded and loaded at the respective ports.

**4.—Cargoes Loaded and Unloaded at Canadian Ports onto or from Vessels in Foreign Service, by Provinces, 1943-47**

Province and Year	Loaded		Unloaded	
	Tons Weight	Tons Measurement <sup>1</sup>	Tons Weight	Tons Measurement
<b>Prince Edward Island—</b>				
1943.....	6,173	40	6	—
1944.....	19,798	—	4	—
1945.....	15,180	76	2,041	—
1946.....	15,120	—	4,187	—
1947.....	58,590	9,795	12,632	—
<b>Nova Scotia—</b>				
1943.....	3,168,353	1,911	2,233,412	12,755
1944.....	3,202,023	17,237	2,266,903	499
1945.....	2,969,241	49,686	1,738,822	—
1946.....	3,486,483	45,891	2,183,951	156
1947.....	4,125,005	27,989	2,645,143	1,275
<b>New Brunswick—</b>				
1943.....	2,858,989	325,278	409,502	70,609
1944.....	2,319,590	452,036	443,021	62,217
1945.....	2,309,061	475,140	512,334	129,738
1946.....	1,942,402	111,458	467,441	64,944
1947.....	2,239,539	105,879	478,896	44,443
<b>Quebec—</b>				
1943.....	1,863,890	74,622	4,219,193	8
1944.....	2,946,991	172,111	3,691,563	36,755
1945.....	6,853,392	340,639	3,691,905	58,740
1946.....	5,330,566	417,599	4,978,384	64,801
1947.....	5,724,483	312,652	6,880,554	47,741
<b>Ontario—</b>				
1943.....	6,511,700	—	19,548,919	—
1944.....	7,501,458	—	19,504,912	—
1945.....	5,955,203	—	16,926,183	3
1946.....	3,483,132	30,629	16,924,368	—
1947.....	4,067,226	—	20,438,843	—
<b>British Columbia—</b>				
1943.....	1,518,639	187,404	1,368,389	669
1944.....	2,160,090	163,885	1,647,041	3,083
1945.....	3,184,483	180,911	1,452,746	16,767
1946.....	4,300,958	15,994	1,748,006	3,916
1947.....	4,876,930	4,427	2,283,806	17,437
<b>Yukon—</b>				
1943.....	7,138	—	292	—
1944.....	764	—	5	—
1945.....	875	—	67	—
1946.....	915	—	57	—
1947.....	736	—	109	—
<b>Totals—</b>				
1943.....	15,934,882	589,255	27,779,713	84,041
1944.....	18,150,714	893,269	27,553,449	102,554
1945.....	21,287,435	1,046,452	24,324,098	295,248
1946.....	18,650,823 <sup>2</sup>	621,571	26,306,419 <sup>2</sup>	133,817
1947.....	21,246,012 <sup>2</sup>	460,742	32,740,358 <sup>2</sup>	110,896

<sup>1</sup> One measured ton=40 cubic feet.

<sup>2</sup> Includes 91,247 tons loaded and 25 tons unloaded at Manitoba ports in 1946 and 153,503 tons loaded and 375 tons unloaded in 1947.

### Subsection 2.—Aids to Navigation

Included under this heading are the lighthouses and the whole system of marine danger signals on the east and west coasts of Canada, on Hudson Bay and Strait, the St. Lawrence River and Gulf, the inland rivers and lakes, and at the entrances to harbours—a very extensive system designed to provide safe navigation in all Canadian waters. In addition, a pilotage service is maintained in waters where navigation is difficult; this service is described under marine services at p. 776. As a further aid to safe navigation, there are chains of radio signal and direction-finding stations which are described under radiotelegraphy at pp. 813-815. Lists of aids to navigation, excepting very minor ones, are published by the Department of Transport.

#### 5.—Marine Danger Signals Maintained in Canada, Years Ended Mar. 31, 1943-49

NOTE.—In addition to the aids to navigation listed, approximately 9,006 unlighted buoys, balises, dolphins and beacons are maintained. The figures are supplied by the Department of Transport and do not include installations being taken over in Newfoundland. A table showing marine danger signals maintained during the years ended Mar. 31, 1929-40 is given at p. 581 of the 1941 Year Book. Figures for 1942 will be found at p. 716 of the 1948-49 edition.

Type of Signal	1943	1944	1945	1946	1947	1948	1949
	No.	No.	No.	No.	No.	No.	No.
Lights.....	2,050	2,082	2,095	2,107	2,320	2,469	2,491
Lightships.....	7	7	7	6	8	8	8
Light-keepers.....	1,135	1,129	1,132	1,132	1,122	1,102	1,094
Fog whistles.....	12	12	13	13	8	9	11
Sirens.....	4	4	3	3	2	2	2
Diaphones.....	167	167	168	170	169	169	176
Fog bells.....	47	48	49	49	39	37	38
Hand fog horns.....	153	153	151	149	135	137	137
Hand fog bells.....	4	4	4	4	9	10	10
Gas, and combination gas, whistling and bell buoys.....	463	469	479	435	541	552	585
Whistling buoys.....	44	42	42	41	40	39	39
Bell buoys.....	123	119	122	122	118	112	113
Submarine bells.....	2	2	2	1	—	—	—
Fog guns and bombs.....	14	14	14	13	12	12	11
Fog alarm stations only.....	13	13	13	13	10	10	11

A great deal has been done to improve navigable waters by dredging in channels and harbours, by the removal of obstructions, and by the building of remedial works to maintain or control water levels. Probably the largest task of this nature has been the St. Lawrence River Ship Channel. An extensive floating plant is in service to maintain and improve the deep-water channel from Montreal to the sea for ocean-going shipping. Incidental to these developments of navigable waters are works to guard shorelines and prevent erosion, and for the control of roads and bridges that cross navigable channels. In order to prolong the season of navigation in important waters that freeze over in winter, ice-breaking operations are carried on at both the beginning and end of winter. This is particularly the case in connection with sea-going shipping from Montreal: these operations are primarily intended to prevent flood conditions during the spring ice break-up.

### 6.—Seasons of Open Navigation on the St. Lawrence Ship Channel, 1933-48

NOTE.—Figures for the years 1882-1911 are given at p. 756 of the 1934-35 Year Book and for 1912-32 at p. 615 of the 1942 edition.

Year	Channel Open, Quebec to Montreal <sup>1</sup>	First Arrival from Sea, Montreal Harbour	Last Departure for Sea, Montreal Harbour	Year	Channel Open, Quebec to Montreal <sup>1</sup>	First Arrival from Sea, Montreal Harbour	Last Departure for Sea, Montreal Harbour
1933.....	Mar. 23	Apr. 14	Dec. 6	1941.....	Apr. 14	Apr. 19	Dec. 17
1934.....	" 28	" 26	" 8	1942.....	" 17	May 2	" 16
1935.....	" 30	" 15	" 9	1943.....	" 29	" 24	" 13
1936.....	" 28	" 13	" 11	1944.....	" 20	Apr. 20	" 9
1937.....	Apr. 9	" 19	" 8	1945.....	" 1	" 9	" 3
1938.....	" 12	" 13	" 4	1946.....	" 1	" 12	" 18
1939.....	" 29	" 29	" 12	1947.....	" 16	" 19	" 5
1940.....	" 23	" 24	" 5	1948.....	" 16	" 19	" 10

<sup>1</sup> "Channel Open" means the route can be navigated although there may be floating ice in the river.

### Subsection 3.—Canals

The canals and canalized waters of Canada under the jurisdiction of the Department of Transport, comprise a series of waterways providing navigation for 1,875 miles inland from salt water. The canals may be divided into two classes: (1) the main or primary canals on the St. Lawrence River and the Great Lakes, including the Lachine, Soulages, Cornwall and Williamsburg Canals on the St. Lawrence River, the Welland Ship Canal between Lakes Ontario and Erie and the Sault Ste. Marie Canal between Lake Huron and Superior; and (2) subsidiary or secondary canals including the St. Peters Canal between Bras d'Or Lake and the Atlantic Ocean, Cape Breton, the St. Ours and Chambly Canals on the Richelieu River, the St. Anne, Carillon and Grenville Canals on the Ottawa River, the Rideau Canal between the Ottawa River and Lake Ontario and the Trent and Murray Canals between Lake Ontario and Georgian Bay.

The importance of this transportation system as a highway of commerce is evidenced by the fact that, during 1948, 23,559,313 tons of freight passed through, the second highest tonnage since 1916; the peak was reached in 1938 when the freight traffic amounted to 24,636,462 tons. In 1948, 22,643 vessels passed through the canals compared with 20,874 in 1947.

In addition to freight and passenger vessels, there were thousands of pleasure craft locked through the canals. The number of passengers on vessels locking at Sault Ste. Marie reached 63,707 in 1948 as compared with 53,782 in 1947.

Revenue from the canals during the year ended Mar. 31, 1948, amounted to \$1,017,412, of which \$826,207 was derived from rentals for hydraulic and land privileges and wharfage.

The names of the various canals along these routes, their locations and lengths, together with the number and dimensions of the locks thereon and other information may be found in the bulletin "Canals of Canada", published by the Department of Transport.

Under the jurisdiction of the Federal Department of Public Works are the St. Andrews Lock (length, width and draught, respectively, 215, 45 and 17 ft.) at Selkirk on the Red River, Man., and the lock at Poupore, Que. There are also a few small isolated locks, each controlled under the authority of the province in which it is situated.



Table 7 shows the length and lock dimensions of canals under the administration of the Department of Transport, as at the end of 1948.

**7.—Length and Lock Dimensions of Canals under the control of the Department of Transport, 1948**

Name	Location	Length of Canal	Locks			
			No.	Minimum Dimensions		
				Length	Width	Depth
		miles		ft.	ft.	ft.
St. Lawrence—						
Lachine.....	Montreal to Lachine.....	8.74	5	270	45	14 <sup>1</sup>
Soulanges.....	Cascades Point to Coteau Landing..	14.67	5	280	46	15 <sup>1</sup>
Cornwall.....	Cornwall to Dickinsons Landing...	11.00	6	270	43-67	14 <sup>1</sup>
Farran Point..	Farran Point Rapids.....	1.28	1	800	50	16 <sup>1</sup>
Rapide Plat....	Morrisburg.....	3.89	2	270	45	14 <sup>1</sup>
Galop.....	Iroquois to Cardinal.....	7.36	3	270	45	14 <sup>1</sup>
Welland Ship....	Port Weller, Lake Ontario, to Port Colborne, Lake Erie.....	27.60	8	859	80	30 <sup>2</sup>
Sault Ste. Marie	Sault Ste. Marie, Ont.....	1.38	1	900	60	18-25
Richelieu River—						
St. Ours.....	St. Ours, Que.....	0.12	1	339	45	12
Chambly.....	Chambly to St. Johns, Que.....	11.78	9	120.5	23.25	6.5
Ottawa River—						
St. Anne.....	Junction of St. Lawrence and Ottawa Rivers.....	0.12	1	200	45	9
Carillon.....	Carillon Rapids, Ottawa River.....	0.94	2	200	45	9
Grenville.....	Long Sault Rapids, Ottawa River...	5.94	5	200	45	9
Miscellaneous—						
Rideau.....	Ottawa to Kingston.....	123.53	47	134	33	5.5
	Rideau Lake to Perth (Tay Branch)	6.82	2	134	33	5.5
Trent.....	Trenton to Peterborough Lock, Peterborough.....	88.74	18	175	33	8 <sup>3</sup>
	Peterborough Lock to Swift Rapids.	135.71	24	134	33	6
	Swift Rapids to Big Chute <sup>4</sup> .....	8.00	—	—	—	—
	Big Chute to Port Severn.....	8.11	1	100	25	6
	Sturgeon Lake to Lindsay (Scugog Branch).....	10.00	1	142	33	6
	Lindsay to Port Perry (Scugog Branch).....	25.00	—	—	—	—
Murray.....	Isthmus of Murray—Bay of Quinte..	7.53 <sup>5</sup>	—	—	—	—
St. Peters.....	St. Peters Bay to Bras d'Or Lakes, Cape Breton, N.S.....	0.50	1	300	48	18 <sup>6</sup>

<sup>1</sup> Navigable depths are occasionally less at times of extremely low water. <sup>2</sup> Minimum depth between locks 23 ft.

<sup>3</sup> Notice must be given by vessels of more than 6 ft. 10 in. draught.

<sup>4</sup> Marine railways in this section limit navigation to vessels 60 ft. long 13.5 ft. wide and 4.0 ft. draught.

<sup>5</sup> Minimum depth of canal with Lake Ontario at elevation 244 ft. above sea-level is 9.5 ft. <sup>6</sup> The depth of canal prism is 17 ft.

**Canal Traffic.**—The canals of Canada are open to the vessels and traffic of all nations upon equal terms and thus United States traffic constitutes an important part of the total carried through certain canals, especially the Welland Ship Canal. This is shown in Tables 8 and 10. More complete details of the traffic through canals may be found in the annual report "Canal Statistics" published by the Dominion Bureau of Statistics.

### 8.—Traffic through Canadian Canals, by Nationality of Vessel and Origin of Freight, Navigation Seasons, 1939-48

NOTE.—Figures include duplications where cargoes use two or more canals. For Canadian canal traffic from 1886-99, see the 1902 Year Book, p. 398; for figures for 1900-10, the 1933 edition, p. 697; for 1911-35 p. 703 of the 1938 edition; and for 1936-38, p. 736 of the 1948-49 edition.

Navigation Season	Nationality of Vessel				Origin of Freight Carried				
	Canadian		United States <sup>1</sup>		Canada		United States		Total
	Vessels	Registered Tonnage	Vessels	Registered Tonnage	Tons	P.C. of Total	Tons	P.C. of Total	Tons
	No.	No.	No.	No.					
1939..	24,768	18,240,632	2,757	3,095,648	14,150,305	60.5	9,240,772	39.5	23,391,077
1940..	23,646	18,513,994	3,194	4,056,089	12,257,336	53.6	10,613,217	46.4	22,870,553
1941..	24,418	20,211,209	3,456	5,420,815	10,334,174	44.1	13,119,193	55.9	23,453,367
1942..	22,150	18,952,917	3,751	8,404,363	7,764,804	37.2	13,134,835	62.8	20,899,639
1943..	20,855	18,273,304	2,617	5,686,958	7,838,429	36.5	13,637,765	63.5	21,476,194
1944..	20,780	18,191,826	1,911	4,541,575	8,002,746	38.8	12,612,761	61.2	20,615,507
1945..	21,064	19,068,308	1,553	3,426,069	10,491,263	47.0	11,829,136	53.0	22,320,399
1946..	17,199	16,206,415	1,794	3,221,008	8,904,733	47.7	9,750,186	52.3	18,654,919
1947..	18,542	18,613,576	2,332	3,796,293	10,288,481	47.8	11,225,458	52.2	21,513,939
1948..	19,859	19,723,768	2,784	4,219,539	11,169,714	47.4	12,389,599	52.6	23,559,313

<sup>1</sup> Figures include a small percentage of vessels of other foreign nationalities.

### 9.—Tonnage of Canal Traffic, by Canal and Class of Product, Navigation Season 1948

NOTE.—Figures include duplications where cargoes use two or more canals.

Canal	Agricultural Products	Animal Products	Manufactures and Miscellaneous	Forest Products	Mineral Products	Total
	tons	tons	tons	tons	tons	tons
Sault Ste. Marie.....	1,146,964	153	706,467	158,884	358,594	2,371,062
Welland Ship.....	2,469,618	5,458	3,227,236	522,598	7,148,411	13,373,321
St. Lawrence River.....	1,343,491	4,870	2,231,974	626,807	3,170,868	7,378,010
Richelieu River.....	—	35	86,536	—	4,794	91,365
St. Peters.....	2,307	1,009	11,185	206	5,866	20,573
Murray.....	—	139	2,800	—	—	2,939
Ottawa River.....	—	—	3,198	—	260,145	263,343
Rideau.....	—	—	250	120	953	1,323
Trent.....	—	—	141	—	38,540	38,681
St. Andrews.....	392	2,623	5,182	10,264	235	18,696
<b>Totals.....</b>	<b>4,962,772</b>	<b>14,287</b>	<b>6,274,969</b>	<b>1,318,879</b>	<b>10,988,406</b>	<b>23,559,313</b>

### 10.—Canal Traffic, by Direction and Origin, Navigation Season 1948

NOTE.—Figures include duplications where cargoes use two or more canals.

Canal	From Canadian to Canadian Ports		From Canadian to United States Ports <sup>1</sup>		From United States to United States Ports <sup>1</sup>		From United States <sup>1</sup> to Canadian Ports	
	Up	Down	Up	Down	Up	Down	Up	Down
	tons	tons	tons	tons	tons	tons	tons	tons
Sault Ste. Marie...	527,647	1,166,969	4,147	291,833	3,975	24,305	329,515	22,671
Welland Ship.....	988,206	2,694,733	576,402	30,449	495,335	823,880	74,781	7,689,535
St. Lawrence River...	1,969,233	1,832,972	631,272	32,201	101,643	81,208	25,105	2,704,376
Richelieu River.....	49,709	1,962	26,480	—	—	—	—	13,214
St. Peters.....	10,122	7,791	646	1,973	—	—	—	41
Murray.....	139	2,785	—	—	—	—	—	15
Ottawa River.....	1,345	258,800	—	3,198	—	—	—	—
Rideau.....	352	971	—	—	—	—	—	—
Trent.....	—	38,681	—	—	—	—	—	—
St. Andrews.....	13,141	5,555	—	—	—	—	—	—
<b>Totals.....</b>	<b>3,559,894</b>	<b>6,011,219</b>	<b>1,238,947</b>	<b>359,654</b>	<b>600,953</b>	<b>929,393</b>	<b>429,401</b>	<b>10,429,852</b>

<sup>1</sup> Figures for the United States include small percentages of traffic from other foreign countries.

**10.—Canal Traffic, by Direction and Origin, Navigation Season 1948—concluded**

Canal	Traffic by Direction		Origins of Cargo		Total Cargo	Comparison with 1947
	Up	Down	Canada	United States <sup>1</sup>		
	tons	tons	tons	tons	tons	tons
Sault Ste. Marie.....	865,284	1,505,778	1,990,596	380,466	2,371,062	+242,732
Welland Ship.....	2,134,724	11,238,597	4,289,790	9,083,531	13,373,321	+1,567,746
St. Lawrence River.....	2,727,253	4,650,757	4,465,678	2,912,332	7,378,010	+198,416
Richelieu River.....	76,189	15,176	78,151	13,214	91,365	+30,279
St. Peters.....	10,768	9,805	20,532	41	20,573	-13,689
Murray.....	139	2,800	2,924	15	2,939	+1,939
Ottawa River.....	1,345	261,998	263,343	—	263,343	+8,516
Rideau.....	352	971	1,323	—	1,323	-185
Trent.....	—	38,681	38,681	—	38,681	+8,076
St. Andrews.....	13,141	5,555	18,696	—	18,696	+1,544
<b>Totals.....</b>	<b>5,829,195</b>	<b>17,730,118</b>	<b>11,169,714</b>	<b>12,389,599</b>	<b>23,559,313</b>	<b>+2,045,374</b>

<sup>1</sup> Figures for the United States include small percentages of traffic from other foreign countries.

The figures in Tables 9 and 10 include duplications where the same freight passes through two or more canals, but in Table 11 duplications in the traffic passing through the St. Lawrence and Welland Ship Canals and the Canadian lock at Sault Ste. Marie have been eliminated.

Grain transhipped at Georgian Bay, Lake Erie, or other ports above Montreal is treated as new cargo and as most of this grain has passed through either the Canadian or United States locks at Sault Ste. Marie there are still duplications in the data because of this treatment. These duplications cannot be avoided when net totals for the Canadian canals are computed because it is impossible to ascertain which lock at Sault Ste. Marie was used by the grain reloaded at Port Colborne, Ont., or other transhipping port.

**11.—St. Lawrence-Great Lakes Traffic Using St. Lawrence, Welland Ship and Sault Ste. Marie Canals, 1948**

Canals Used	Up-Bound Freight	Down-Bound Freight	Total
	tons	tons	tons
<b>Traffic Using Canadian Canals—</b>			
St. Lawrence only.....	1,661,321	2,529,609	4,190,930
St. Lawrence and Welland Ship.....	906,200	1,560,553	2,466,753
St. Lawrence, Welland Ship and Sault Ste. Marie <sup>1</sup> .....	149,764	302,197	451,961
Welland Ship only.....	789,225	6,522,596	7,311,821
Welland Ship and Sault Ste. Marie <sup>1</sup> .....	289,535	2,853,251	3,142,786
Sault Ste. Marie only.....	425,985	977,308	1,403,293
<b>Totals, Traffic Using Canadian Canals.....</b>	<b>4,222,030</b>	<b>14,745,514</b>	<b>18,967,544</b>
<b>Totals, Traffic Using United States Locks at Sault Ste. Marie Only.....</b>	<b>10,265,337</b>	<b>94,258,251</b>	<b>113,523,588</b>
<b>Totals, Canal Traffic.....</b>	<b>23,487,367</b>	<b>109,003,765</b>	<b>132,491,132</b>

<sup>1</sup> Through both Canadian and United States locks at Sault Ste. Marie.

Traffic through the Sault Ste. Marie canals, Canadian and United States, has been approximately twice as heavy as the traffic through the Panama Canal during the latest ten years for which records are available, and in 1940 was almost three times as heavy. It has varied from a low of 20,484,000 tons in 1932, which was less than the Panama traffic, to a high of 120,200,814 tons in 1942. The dominant traffic, from a tonnage aspect, is iron ore. During the past 50 years this has fluctuated



from 4,901,000 tons in 1892, an average of 50,000,000 tons in the 1920's, a low of 3,607,000 tons in 1932 and to a peak of 94,326,578 tons in 1942. Although wheat has ranged as low as only 7 p.c. of the iron-ore tonnage, its value has generally been greater than that of the iron-ore traffic, and has been the most valuable single commodity passed through the canals; in 1928 the value of wheat passed through the canals was 40 p.c. of the value of all traffic. Other grains have been about one-quarter to one-fifth of the wheat tonnage and a smaller ratio of the value.

Bituminous coal has generally been second in tonnage to iron ore increasing from 15,529,045 tons during the 1947 season to 16,558,048 tons in 1948.

**The Panama Canal.**—The Panama Canal, which was opened to commercial traffic on Aug. 15, 1914, has been a waterway of great importance to British Columbian ports, from which vessels leave direct for British and European ports throughout the year. As an alternative route to that of the transcontinental railway lines, such a passage by water is of vital importance in the solution of the larger transportation problems of the Continent. During the First World War the great expectations based upon the opening of the Canal were not realized, owing to the scarcity of shipping. However, with the post-war decline in ocean freight rates, an increase in traffic between Canada's Pacific ports and Europe took place and, while the proportion carried in vessels of Canadian registry was comparatively small, the cargo tonnage nevertheless assumed considerable proportions. During the war years 1940-45, the volume of Canadian traffic through the Canal was greatly reduced.

#### 12.—Traffic To and From the East and West Coasts of Canada via the Panama Canal, Years Ended June 30, 1939-48

NOTE.—Figures for the years 1921-28 are given at p. 707 of the 1938 Year Book and those for 1929-38 at p. 738 of the 1948-49 edition.

Year	Originating on—		Destined for—		Year	Originating on—		Destined for—	
	West Coast	East Coast	West Coast	East Coast		West Coast	East Coast	West Coast	East Coast
	long tons	long tons	long tons	long tons		long tons	long tons	long tons	long tons
1939.....	2,873,452	348,410	163,526	296,881	1944 <sup>1</sup> .....	363,220	17,283	30,044	—
1940.....	2,272,450	313,118	185,540	108,648	1945 <sup>1</sup> .....	679,079	65,395	366,118	30,540
1941.....	1,366,873	178,700	99,693	220,228	1946.....	1,756,989	184,850	111,161	62,516
1942.....	374,073	135,655	36,709	152,807	1947.....	2,981,348	316,898	132,521	99,745
1943.....	723,528	95,788	—	21,611	1948.....	2,824,394	244,121	162,561	67,215

<sup>1</sup> Approximate—exact figures not available.

#### 13.—Commercial Traffic Through the Panama Canal, Years Ended June 30, 1939-48

NOTE.—Figures for the years 1915-28 are given at p. 708 of the 1938 Year Book; for 1929-36 at p. 636 of the 1942 edition; and for 1937-38 at p. 739 of the 1948-49 edition.

Year	Atlantic to Pacific		Pacific to Atlantic		Totals	
	Vessels	Cargo Tonnage	Vessels	Cargo Tonnage	Vessels	Cargo Tonnage
	No.	long tons	No.	long tons	No.	long tons
1939.....	3,146	9,011,267	2,757	18,855,360	5,903	27,866,627
1940.....	2,763	9,819,600	2,607	17,479,416	5,370	27,299,016
1941.....	2,353	9,488,446	2,374	15,462,345	4,727	24,950,791
1942.....	1,227	4,684,922	1,461	8,922,522	2,688	13,607,444
1943.....	824	4,945,267	998	5,654,690	1,822	10,599,966
1944.....	671	3,354,349	891	3,649,138	1,562	7,003,487
1945.....	924	4,234,935	1,015	4,368,672	1,939	8,603,607
1946.....	1,516	6,118,085	2,231	8,859,855	3,747	14,977,940
1947.....	2,021	8,294,820	2,239	13,375,698	4,260	21,670,518
1948.....	2,286	8,679,140	2,392	15,438,648	4,678	24,117,788

### Subsection 4.—Harbours

Water transportation cannot be studied with any degree of completeness without taking into consideration the co-ordination of land and water transportation at many of the ports. Facilities provided to enable interchange movements include the necessary docks and wharves, some for passenger traffic but most of them for freight, warehouses for the handling of general cargo, and special equipment for such bulk freight as lumber, coal, oil, grain, etc. Facilities may include cold-storage warehouses, harbour railway and switching connections, grain elevators, coal bunkers, oil-storage tanks and, in the chief harbours, dry-dock accommodation.

Eight of the principal harbours of Canada are administered by the National Harbours Board. Seven other harbours come under the supervision of the Department of Transport and are administered by commissions that include municipal as well as Federal Government appointees. In addition, there are about 300 public harbours coming under the direct supervision of the Department of Transport. These harbours are administered under rules and regulations approved by the Governor General in Council. Harbour masters have been appointed by the Minister of Transport for 131 of these harbours, their remuneration being made from fees levied on vessels under the terms of the Canada Shipping Act.

At most ports, in addition to the harbour facilities operated by the National Harbours Board or other operating commission, there are dock and handling facilities owned by private companies such as railway, pulp and paper, oil, sugar industries, etc. At a number of ports there are also graving docks that are dealt with separately.

### 14.—Facilities of Six of the Principal Harbours, as at Dec. 31, 1948

NOTE.—The facilities include those under the control of other agencies as well as those of the National Harbours Board at these ports.

Item	Halifax	Saint John	Quebec	Three Rivers	Montreal	Vancouver
Minimum depth of approach channel..... ft.	50	30	35	32.5	32.5	35
Harbour railway.....miles	31	63	23	5	61	75
Piers, wharves, jetties, etc.... No.	46	20	36	3	105	28
Length of berthing..... ft.	33,416	15,375	32,505	8,690	51,060	31,436
Transit-shed floor space.....sq.ft.	1,236,804	736,800	743,642	173,600	2,063,033	1,415,514
Cold storage warehouse capacity.....cu.ft.	1,655,350	900,000	500,000	—	2,909,210	1,855,265
Grain Elevators—						
Capacity.....bu.	2,200,000	3,000,000	4,000,000	2,000,000	15,162,000	18,716,500
Loading rate.....bu. per hr.	75,000	135,000	90,000	32,000	400,000	312,000
Floating crane capacity..... tons	75	65	75	—	75	50
Coal dock storage capacity..... tons	87,000	56,000	215,000	300,000	1,380,000	—
Oil-tank storage capacity..... gal.	116,535,000	9,800,000	46,386,500	—	50,000,000	99,489,592

**National Harbours Board.**—A description of the origin and functions of the National Harbours Board is given at pp. 679-681 of the 1940 Year Book. The Board is responsible for the administration and operation of the following properties (representing a capital investment of approximately \$225,000,000): port facilities such as wharves and piers, transit sheds, grain elevators, cold-storage warehouses, terminal railways, etc., at the harbours of Halifax, Saint John, Chicoutimi, Quebec, Three Rivers, Montreal, Vancouver and Churchill; grain elevators at Prescott and Port Colborne; the Jacques Cartier Bridge at Montreal and the Second Narrows Bridge at Vancouver. Operating revenues and expenses for these properties are given in Table 27, p. 784.

**Harbour Traffic.**—The freight movement through a large port takes a number of different forms. The overseas movement, i.e., the freight loaded into or unloaded from sea-going vessels, frequently constitutes a surprisingly small part of the total. Usually the volume coming in and going out by coastwise vessels is larger. Then there is the 'in transit' movement in vessels that pass through the harbour without loading or unloading. Finally there is the movement from one point to another within the harbour, which in many ports amounts to a large volume. It is not possible to obtain statistics of the total freight handled in all the ports and harbours of Canada, as many of them are small and without the staff necessary to obtain a detailed record of freight handled. The National Harbours Board reports annually the water-borne cargo loaded and unloaded at the eight ports under its control. Six of these are among the principal ports of Canada and the cargo handled in each is shown in Table 15. The figures include freight carried by coastwise and inland international, as well as by sea-going shipping; they include all cargo loaded or unloaded whether by facilities under the Board or at private docks and terminals in these ports. Cross-harbour movements, ballast (non-revenue), bunkers, ships' stores, mail and passengers' baggage are excluded.

**15.—Principal Commodities in Water-Borne Cargo Landed from and Loaded to Vessels at each of Six Principal Ports, 1917 and 1918**

Port and Commodity	1917		1918	
	Inward	Outward	Inward	Outward
	tons	tons	tons	tons
<b>Montreal—</b>				
Grain.....	322,578	1,827,029	548,041	1,728,488
Coal, bituminous.....	1,128,739	38	1,257,444	—
Gasoline.....	316,939	674,916	500,568	841,533
Flour, wheat.....	19,713	840,145	9	588,220
Petroleum oil, fuel.....	445,459	523,935	390,978	519,407
Petroleum oil, crude.....	510,054	316,804	1,248,895	464,226
Sugar, raw.....	217,298	—	248,245	10
Motor-vehicles and parts.....	2,590	132,412	16,747	98,725
Lumber (planks, boards and flooring) and square timber.....	10,900	108,723	7,631	59,043
Meats, canned, cured, prepared or preserved.....	290	109,919	388	49,701
Petroleum oil, refined, not otherwise specified.....	4	79,821	7	78,117
Manganese ore.....	38,640	65,558	32,037	23,016
Railway equipment, not otherwise specified.....	44	13,936	8	29,405
Paper, newsprint.....	1,989	101,729	565	40,361
Phosphate rock.....	71,045	13,700	28,191	—
Kerosene.....	368,772	23,787	136,786	12,310
Cement, common or portland.....	1,366	99,608	12,171	99,207
Pulpboard (except wallboard).....	1	31,362	—	37,228
Gypsum, crude.....	102,183	8,680	135,753	10,850
Coal, anthracite.....	43,174	9,684	102,926	6,610
Molasses.....	54,101	6,237	42,137	—
Iron ore.....	114,548	87,510	9	588,220
Wood-pulp.....	2,711	54,511	816	46,301
Cheese.....	32	28,147	133	22,381
<b>Totals, 24 Commodities.....</b>	<b>3,773,170</b>	<b>5,158,191</b>	<b>4,710,485</b>	<b>5,343,359</b>
<b>Grand Totals, All Commodities.....</b>	<b>4,323,466</b>	<b>6,484,407</b>	<b>5,508,386</b>	<b>6,129,734</b>
<b>Vancouver—</b>				
Grain.....	—	1,336,909	—	1,121,772
Logs, masts, piling, pitprops, poles, posts, spars and ties (railway).....	1,103,301	164,696	1,193,686	177,521
Petroleum oil, crude.....	972,498	—	1,146,562	—
Petroleum oil, fuel.....	588,464	316,944	428,306	350,943
Lumber (planks, boards and flooring) and square timber.....	499,022	411,938	547,715	351,234
Sand and gravel.....	384,093	19,491	393,748	10,526
Paper, newsprint.....	209,827	19,487	199,410	18,935
Gasoline.....	181,080	136,982	201,940	150,983
Coal, bituminous.....	135,392	37,057	112,742	169,931



**15.—Principal Commodities in Water-Borne Cargo Landed from and Loaded to Vessels at each of Six Principal Ports, 1947 and 1948—continued**

Port and Commodity	1947		1948	
	Inward	Outward	Inward	Outward
	tons	tons	tons	tons
<b>Vancouver—concluded</b>				
Flour, wheat.....	18	259,209	4	115,698
Wood-pulp.....	179,404	22,536	176,938	14,405
Fish (including shellfish), canned or preserved.....	35,190	66,194	24,212	37,440
Fertilizers and fertilizer materials.....	6,695	72,785	16,827	36,834
Cement, common or portland.....	93,331	7,596	107,615	10,855
Hog fuel.....	—	59,467	—	79,101
Rock and stone.....	3,279	99,913	4,177	7,602
Kerosene.....	84,696	28,734	75,268	32,304
<b>Totals, 17 Commodities.....</b>	<b>4,476,290</b>	<b>3,059,938</b>	<b>4,629,150</b>	<b>2,686,084</b>
<b>Grand Totals, All Commodities.....</b>	<b>5,104,197</b>	<b>3,856,733</b>	<b>5,430,583</b>	<b>3,531,826</b>
<b>Halifax—</b>				
Petroleum oil, crude.....	995,834	—	1,162,458	—
Petroleum oil, fuel.....	68,309	348,171	107,268	378,914
Coal, bituminous.....	248,039	1,410	222,096	—
Gasoline.....	131,845	133,459	253,409	140,014
Grain.....	447	232,593	1,410	239,250
Flour, wheat.....	—	102,649	271	99,859
Motor-vehicles and parts.....	2,493	60,414	13,820	12,427
Logs, masts, piling, pitprops, poles, posts, spars and ties (railway).....	—	66,014	—	49,326
Lumber (planks, boards and flooring) and square timber.....	28	177,622	107	57,089
Meats, canned, cured, prepared or preserved.....	42	30,181	352	23,171
Fish (including shellfish), fresh or frozen.....	37,749	67	50,864	397
Sugar, raw.....	26,716	—	34,178	—
Fish (including shellfish), dried, pickled, salted or smoked.....	9,930	30,623	11,655	33,146
<b>Totals, 13 Commodities.....</b>	<b>1,521,432</b>	<b>1,183,203</b>	<b>1,857,888</b>	<b>1,033,593</b>
<b>Grand Totals, All Commodities.....</b>	<b>1,845,481</b>	<b>1,731,978</b>	<b>2,205,563</b>	<b>1,423,643</b>
<b>Saint John—</b>				
Grain.....	—	371,846	—	333,275
Flour, wheat.....	20	400,815	18	307,711
Coal, bituminous.....	162,774	321	167,704	608
Lumber (planks, boards and flooring) and square timber.....	7,423	220,420	4,143	77,991
Sugar, raw.....	157,857	—	212,145	18
Motor-vehicles and parts.....	2,098	50,616	16,095	32,570
Paper, newsprint.....	365	93,071	2,022	51,339
Gasoline.....	122,981	10,644	116,837	11,291
Petroleum oil, fuel.....	82,859	5,231	95,460	5,860
Logs, masts, piling, pitprops, poles, posts, spars and ties (railway).....	5,642	130,401	753	124,592
Potatoes.....	21	113,239	—	47,904
<b>Totals, 11 Commodities.....</b>	<b>542,040</b>	<b>1,396,604</b>	<b>615,177</b>	<b>993,159</b>
<b>Grand Totals, All Commodities.....</b>	<b>909,076</b>	<b>2,104,630</b>	<b>1,043,067</b>	<b>1,703,906</b>
<b>Three Rivers—</b>				
Pulpwood.....	1,255,316	—	1,394,779	—
Coal, bituminous.....	349,971	224	511,916	—
Grain.....	328,360	376,991	192,246	246,812
Logs, masts, piling, pitprops, poles, posts, spars and ties (railway).....	—	63,182	—	—
Paper, newsprint.....	—	79,946	156	84,264
Lumber (planks, boards and flooring) and square timber.....	7,090	37,301	10,706	3,123
Gasoline.....	23,626	1,030	23,398	306
Sulphur.....	21,681	—	26,890	—
Petroleum oil, fuel.....	12,257	2,468	13,625	1,985
Sand and gravel.....	1,797	27	4,603	—
<b>Totals, 10 Commodities.....</b>	<b>2,000,098</b>	<b>561,169</b>	<b>2,178,319</b>	<b>336,490</b>
<b>Grand Totals, All Commodities.....</b>	<b>2,032,335</b>	<b>575,794</b>	<b>2,209,884</b>	<b>358,126</b>

**15.—Principal Commodities in Water-Borne Cargo Landed from and Loaded to Vessels at each of Six Principal Ports, 1947 and 1948—concluded**

Port and Commodity	1947		1948	
	Inward	Outward	Inward	Outward
	tons	tons	tons	tons
<b>Quebec—</b>				
Pulpwood.....	590,801	88,504	484,542	482
Coal, bituminous.....	382,880	360	566,824	557
Gasoline.....	148,539	—	188,395	55
Logs, masts, piling, pitprops, poles, posts, spars and ties (railway).....	576	75,526	588	64,999
Petroleum oil, fuel.....	200,590	3,232	221,678	5,703
Lumber (planks, boards and flooring) and square timber.....	9,218	66,799	8,112	12,647
Cement, common or portland.....	49,818	686	56,594	999
<b>Totals, 7 Commodities.....</b>	<b>1,382,422</b>	<b>235,107</b>	<b>1,526,733</b>	<b>85,442</b>
<b>Grand Totals, All Commodities.....</b>	<b>1,532,159</b>	<b>322,859</b>	<b>1,623,888</b>	<b>226,482</b>

**Graving Docks.**—The Department of Public Works of the Federal Government has constructed five dry docks. The dock at Kingston, Ont., is under lease to the Kingston Shipbuilding Company, while the old Esquimalt dry dock was temporarily transferred to the Department of National Defence on Nov. 1, 1934. When commercially required, it will be returned to the control of the Department of Public Works. The large dry docks at Lauzon, Que., and Esquimalt, B.C., can be divided into two parts and were built at a cost of approximately \$3,850,000 each. The dimensions of graving docks owned by the Federal Government and the dimensions and cost of those subsidized under the Dry Dock Subsidies Act (9-10 Edw. VII, c. 17, 1910) are given at p. 720 of the 1948-49 Year Book.

**Subsection 5.—Marine Services and Operations of the Federal Government**

The services covered by this Subsection are those dealing with steamship inspection, pilotage service, sea-faring personnel and accidents to shipping, and the operations are those of the Canadian Government Merchant Marine, Limited, and the Canadian National (West Indies) Steamships, Limited.

**Steamship Inspection.**—The Steamship Inspection Service provided for under Part VII of the Canada Shipping Act, 1934, consists of a headquarters staff at Ottawa and staffs of inspectors at the principal ocean and inland ports. The Board of Steamship Inspection decides on questions arising out of the administration of the Act. The Service is responsible for the administration and carrying out of the provisions of the Act respecting the periodic inspection of power-driven ships and the issue of inspection certificates; the assignment of load lines; the conditions under which dangerous goods may be carried in ships; the protection against accident of workers employed in loading or unloading ships; and also for the administration and carrying out of the provisions relating to the certification and employment of marine engineers

## 16.—Steamship Inspection, by Inspection Divisions, Year Ended Mar. 31, 1948

Port	Vessels Subject to Inspection when in Commission		Vessels Inspected				Vessels Not Inspected	
			Registered or Owned in Canada		Registered or Owned Elsewhere			
	No.	gross tonnage	No.	gross tonnage	No.	gross tonnage	No.	gross tonnage
Halifax.....	165	345,748	159	332,151	6	13,597	—	...
Saint John.....	112	240,762	50	117,025	—	...	62	123,737
Quebec.....	77	96,948	77	96,948	—	...	—	...
Sorel.....	93	88,702	53	79,534	—	...	35	9,118
Montreal.....	208	624,578	121	408,944	3	9,499	84	206,135
Kingston.....	49	65,606	49	65,606	—	...	—	...
Toronto.....	197	307,044	195	304,494	1	2,482	1	68
Midland.....	72	109,345	57	105,066	—	...	15	4,279
Collingwood.....	60	55,735	50	53,193	1	1,895	9	647
Port Arthur.....	161	48,893	63	42,863	—	...	98	6,030
Vancouver.....	363	337,047	287	310,935	—	...	76	26,112
Victoria.....	60	107,173	44	90,763	1	7,461	15	8,949
Totals.....	1,617	2,427,551	1,210	2,007,572	12	34,934	395	385,075

**Pilotage.**—This service functions under the provisions set forth in Part VI of the Canada Shipping Act, 1934. Qualified pilots may offer their services to the stranger in local and confined waters. At the same time, pilotage might also be considered as a method of insurance.

There are 42 pilotage districts in Canada, nine of which (Sydney, Bras d'Or Lakes, Halifax, Saint John, Quebec, Montreal, St. Lawrence-Kingston-Ottawa, Churchill, and British Columbia) are under the Minister of Transport as pilotage authority. The other districts function under local pilotage authorities appointed by the Governor in Council under the provisions of the Canada Shipping Act.

Table 17 shows, by major ports and area, the number and aggregate tonnage of ships using pilots during the years ended Mar. 31, 1947 and 1948. Corresponding statistics are not available for the St. Lawrence-Kingston-Ottawa district.

## 17.—Pilotage Service by Districts, Years Ended Mar. 31, 1947 and 1948

District	1947		1948	
	Ships	Tonnage	Ships	Tonnage
Bras d'Or, N.S.....	15	15,424	18	34,476
Sydney, N.S.....	1,416	2,491,710	1,399	3,045,902
Saint John, N.B.....	963	2,945,341	1,121	3,414,588
Halifax, N.S.....	2,135	7,097,214	2,268	7,516,686
Quebec, Que.....	2,753	8,708,280	2,925	8,853,402
Montreal, Que.....	4,192	9,404,529	4,948	11,038,884
British Columbia.....	2,456	10,065,042	2,638	12,507,570
Churchill, Man.....	20	76,634	34	119,642

**Seamen Shipped and Discharged.**—Seamen shipped and discharged at Canadian ports under the provisions of the Canada Shipping Act, 1934, during the years ended Mar. 31, 1939 to 1948, are shown in Table 18.



### 18.—Seamen Shipped and Discharged at Canadian Ports, Years Ended Mar. 31, 1939-48

NOTE.—Figures for the years 1908-17 are given at p. 690 of the 1938 Year Book and for 1918-38 at p. 587 of the 1941 edition.

Year	Seamen Shipped	Seamen Discharged	Year	Seamen Shipped	Seamen Discharged
	No.	No.		No.	No.
1939.....	32,416	29,226	1944.....	26,068	20,491
1940.....	22,892	20,760	1945.....	29,230	25,056
1941.....	28,782	25,134	1946.....	30,361	27,042
1942.....	23,064	20,312	1947.....	43,973	42,205
1943.....	19,255	15,250	1948.....	59,768	60,793

**Canadian Government Merchant Marine.**—The circumstances under which the Canadian Government became possessed of, and responsible for, the operations of a merchant marine are explained at p. 776 of the 1934-35 Year Book. A table showing the operating results from 1919 to 1936 is given at p. 689 of the 1937 Year Book.

The original fleet of the Canadian Government Merchant Marine, Limited, consisted of 66 vessels with a total deadweight tonnage of 391,212. The original cost of the fleet was \$79,661,921 and the capital loss thereon was \$74,239,356, the total capital recovery of \$5,422,565 being made up as follows: (1) the sale of 56 vessels for \$2,378,018; (2) the proceeds of insurance on four vessels lost, amounting to \$2,111,475; (3) the sale of six vessels to the Canadian National (West Indies) Steamships, Limited, for \$933,072.

The charter of the Canadian Government Merchant Marine, Limited, and its subsidiary companies, although inactive since 1936, had not been surrendered and in 1940 the Company was reconstituted and is operating on behalf of the Canadian Government certain ships seized in prize and either requisitioned for use by the Canadian Government or condemned by the Court.

**Canadian National (West Indies) Steamships, Limited.**—In conformity with the Canada-West Indies Trade Agreement of 1926 (16-17 Geo. V., c. 16) the Federal Government has provided direct steamship services to the West Indies through the medium of Canadian National (West Indies) Steamships, Limited.

At the end of 1948, the Canadian National Steamships, Limited, owned and operated ten vessels between Canada and the British West Indies.

### 19.—Financial Statistics of Canadian National (West Indies) Steamships, Limited, 1939-48

NOTE.—Statistics for the years 1929-38 are given at p. 620 of the 1942 Year Book.

Year	Operating Revenues	Operating Expenses	Operating Net	Depreciation	Interest	Book Loss or Surplus
	\$	\$	\$	\$	\$	\$
1939.....	4,642,306	4,018,447	+623,859	328,829	816,366	-524,429
1940.....	5,750,341	4,545,306	+1,205,035	329,079	816,661	-12,733
1941.....	6,756,464	5,029,107	+1,727,357	262,645	816,701	+593,216
1942.....	5,600,496	4,220,219	+1,380,277	160,634	816,701	+273,880
1943.....	4,492,189	2,949,216	+1,542,973	239,363	813,073	+438,837
1944.....	5,378,059	3,160,568	+2,217,491	243,158	651,246	+1,271,387
1945.....	4,412,252	2,569,626	+1,842,626	279,466	612,999	+1,116,086
1946.....	6,669,129	4,671,148	+1,997,981	288,092	596,499	+1,302,052
1947.....	7,857,471	6,534,600	+1,322,871	493,594	573,298	+522,677
1948.....	7,964,720	6,828,392	+1,136,328	492,222	563,794	+166,044

## Section 2.—Financial Statistics of Waterways

The principal statistics available that give any idea of the cost of water-borne traffic consist of the record of public expenditures on waterways. Such expenditures may be classified as capital expenditures, or investments and expenditures for maintenance and operation. Revenues from operation are also recorded. Undoubtedly, in so far as capital expenditures for the permanent improvements of waterways are concerned, those of the Federal Government cover the major part. There has been some expenditure by municipalities on local harbour facilities, and private capital expenditure is also confined almost entirely to terminal or dockage facilities. The investment in shipping, however, with the exception of the Canadian Government Merchant Marine, Limited, and the Canadian National (West Indies) Steamships, Limited, has come almost entirely from private sources. No figures are available regarding private investment in shipping except those appearing in the reports of the operating companies which cover only a portion of the field. Neither are there statistics showing the revenues of ship operators from passenger and freight traffic.

**Capital Expenditures.**—The only figures available of capital expenditures on Canadian waterways are those compiled from the "Public Accounts" and the annual reports of the Departments of Transport, Public Works and Finance. However, such expenditures cannot be regarded as any indication of the present worth of the undertakings represented. The costs of building canals and other waterways and permanent works to facilitate water transportation in Canada are represented in such reports at their original book values, no deductions having been made from the cumulative totals for depreciation from year to year or for abandonment of earlier works where they had been superseded, as in the first Welland Canals for instance. To this extent such figures are an overstatement of the present value of the works in use. There is a further limitation that should be noted in regard to such figures: they do not include the costs of maintenance and improvements or the operation of these works, such charges having been made to the Consolidated Deficit Account as annual expenditures and not to capital account. Table 20, which shows capital expenditures on canals, marine service and miscellaneous water-transport facilities to have reached the grand total of over \$386,930,000 must be interpreted with the above qualifications in mind. In Table 21, the capital values of the fixed assets administered by the National Harbours Board are shown as at Dec. 31, 1947 and 1948: these are in addition to the capital expenditures of Table 20. These figures reflect the capital situation in regard to the national harbours of Canada far better than do those of Table 20 in the case of waterways and facilities, inasmuch as they include all buildings, machinery and durable plant improvements; they have also been subject to deductions for depreciation and the scrapping or abandonment of plant and more nearly approach the present value of the properties under the administration of the National Harbours Board.

Table 22 shows the amounts advanced by the Federal Government to the Harbours Boards for capital expenditures from 1946 to 1948.

## 20.—Capital Expenditures of the Federal Government on Canals, Marine Service and Miscellaneous Water Transport Facilities, as at Mar. 31, 1947 and 1948

NOTE.—Compiled from the Annual Reports of the Department of Transport, the Department of Finance and the Department of Public Works.

Expenditures				Expenditures		
Item	Years Ended Mar. 31—		Total to Mar. 31, 1948	Item	Year Ended Mar. 31, 1948	
	1947	1948			\$	\$
Canals			\$	Miscellaneous Facilities <sup>1</sup>		
Quebec Canals—				Bare Point breakwater.....	—	217,996
Beauharnois (old).....	250	Cr. 150	1,635,069	Burlington Bay Canal.....	—	308,328
Carillon and Grenville.....	—	—	4,191,727	Burlington Channel improvements.....	1,365	1,393,855
Chambly (Richelieu R.).....	200	—	780,620	Cape Tormentine harbour.....	1,713	96,713
Lachine.....	—	61,785	14,043,437	Esquimalt graving dock.....	117,698	7,917,459
Lake St. Francis.....	—	—	75,907	Georgian Bay to Montreal		
Lake St. Louis.....	—	—	298,176	waterway survey.....	—	918,797
Soulanges.....	1,200	—	7,898,670	Halifax elevator site.....	—	86,512
St. Anne.....	—	—	1,320,216	Kingston graving dock.....	8,058	564,647
St. Ours (Richelieu R.).....	—	—	735,964	Lake St. Peter.....	—	1,164,235
Ontario — St. Lawrence Canals—				Lévis graving dock.....	—	971,593
Cornwall.....	6,300	—	7,239,503	Miscellaneous wharves.....	—	1,201,132
Williamsburg.....	—	—	1,334,552	Port Arthur, Fort William and River Kaministiquia improvements.....	—	16,249,020
Farran Point.....	—	—	877,090	Port Colborne harbour.....	—	904,459
Rapide Plat.....	—	—	2,159,881	Rainy River Lock and Dam.....	—	134
Galop.....	—	—	6,143,468	Sorel Harbour improvements	18,900	1,825,441
Galop Channel.....	—	—	1,039,896	St. Andrews Rapids and Red River improvements.....	—	1,569,777
North Channel.....	—	—	1,995,143	Tiffin Harbour improvements	—	481,622
River Reaches.....	—	—	483,830	Toronto Harbour improvements.....	376	9,332,363
St. Peters, N.S.....	—	—	648,547	Upper St. Lawrence River Channel improvements.....	—	468,098
Culbute Lock and Dam (Ottawa R.)	—	—	382,391	Victoria, B.C., Harbour improvements.....	—	5,131,025
Rideau.....	—	—	4,214,211	Victoria, Ont., Harbour improvements.....	—	761,802
Tay.....	—	—	489,599	<b>Totals.....</b>	<b>148,110</b>	<b>51,565,008</b>
St. Lawrence Ship (surveys).....	—	—	133,897			
Sault Ste. Marie.....	—	—	4,935,806			
Trent.....	4,668	Cr. 3,667	19,951,889			
Murray.....	—	—	1,248,947			
Welland Ship.....	4,091	Cr. 10,698	131,875,092			
Prior Welland Canals.....	69,951	Cr. 20,441	27,358,710			
Canals generally.....	—	—	34,967			
Adjustment suspense.....	—	—	165,361			
<b>Totals, Canals.....</b>	<b>86,660</b>	<b>26,829</b>	<b>243,692,569</b>			
Marine Service				Summary		
River St. Lawrence Ship Channel.....	970,534	2,489,584	90,092,831	Years Ended Mar. 31—		Total to Mar. 31, 1948
Tug <i>Ocean Eagle</i> .....	—	—	91,072	1947	1948	
Construction of ice-breaker.....	—	—	760,699	\$	\$	\$
Hopper barge <i>Chesterfield</i> .....	—	—	233,941	Canals.....	86,660	26,829
Lighthouse supply and buoy vessel; East Coast.....	—	11,500	11,500	Marine service.....	970,534	2,983,500
Service vessel for the Eastern Arctic Patrol.....	—	482,416	482,416	Miscellaneous facilities.....	—	148,110
<b>Totals, Marine Service.....</b>	<b>970,534</b>	<b>2,983,500</b>	<b>91,672,459</b>	<b>Grand Totals.....</b>	<b>1,057,194</b>	<b>3,158,439</b>
						<b>386,930,036</b>

<sup>1</sup>These are works not covered elsewhere in these tables, and shown in the Public Accounts as Schedule K to the Balance Sheet. There were no expenditures on Miscellaneous Facilities in the year ended Mar. 31, 1947.



## 21.—Capital Values of Fixed Assets administered by the National Harbours Board, as at Dec. 31, 1917 and 1918

NOTE.—Compiled from the Annual Report of the National Harbours Board.

Item	1917	1918	Item	1917	1918
	\$	\$		\$	\$
Harbour dredging.....	12,249,552	12,249,552	Harbour buildings.....	747,148	769,432
Real estate.....	12,785,466	12,781,674	Central heating plants....	147,491	152,443
Vehicular bridges.....	300,573	300,581	Harbour shops.....	335,964	325,718
Roads, fences and boundaries.....	1,760,539	1,762,035	Electric power systems....	1,168,462	1,126,170
Sewers and drains.....	672,649	682,280	Water supply systems....	745,437	748,803
Miscellaneous structures....	752,635	752,635	Floating equipment.....	1,956,820	2,020,778
Wharves and piers.....	89,483,393	89,554,600	Shore equipment.....	894,216	910,529
Permanent sheds.....	20,243,051	20,178,493	Miscellaneous small plant.	567,387	569,384
Shed hoists and electrical cranes.....	248,973	248,973	Engineering — general surveys.....	606,403	606,403
Railway systems.....	7,068,683	7,095,667	Works under construction	238,541	1,841,706
Grain elevator systems....	41,863,783	41,862,223	Sundry expenditure—undistributed.....	5,395,832	5,395,832
Cold-storage systems.....	5,748,840	5,752,233	Bridge construction, right-of-way, etc.....	18,950,041	18,800,819
Office furniture and appliances.....	154,839	158,904	<b>Totals.....</b>	<b>225,086,718</b>	<b>226,647,867</b>

## 22.—Amounts Advanced by the Federal Government to the Harbour Boards for Capital Expenditures, 1916-18

NOTE.—Compiled from the Annual Reports of the National Harbours Board.

Harbours and Properties	1916	1917	1918	Harbours and Properties	1916	1917	1918
	\$	\$	\$		\$	\$	\$
Halifax.....	212,320	34,797	106,948	Montreal.....	223,432	119,570	528,656
Saint John.....	5,600	20,000	1,307,944	Port Colborne elevator....	819	—	3,754
Chicoutimi.....	—	—	415	Churchill.....	3,562	1,751	23,999
Quebec.....	16,257	55,302	8,277	Vancouver.....	43,372	215,997	10,183
Three Rivers.....	1,550	2,444	525	<b>Totals.....</b>	<b>505,912</b>	<b>449,861</b>	<b>1,990,701</b>

## Waterway Expenditures and Revenues on Consolidated Fund Account.—

Expenditures under this heading (Tables 23 to 25) are mainly for the operation and maintenance of various facilities for water transport, but unfortunately the line between operation and maintenance expenditure is not as finely drawn as is desirable.

In addition to the recurrent expenditures to facilitate water transportation shown here, the Federal Government expends annually a considerable amount to cover deficits of the Canadian National (West Indies) Steamships, Limited, and of the National Harbours Board, for mail subsidies and steamship subventions as shown in Table 28. Operating expenditures and revenues of facilities administered by the National Harbours Board are shown separately in Table 27. The National Harbours Board operates as a statutory corporation. The improvement in the financial results since control was unified under the Board is indicated by the increase of consolidated operating income from \$2,452,000 in 1935 to \$5,242,276 in 1948. Revenues in connection with waterways of the Department of Transport and the Department of Public Works are shown in Table 26, pp. 783-784.

### 23.—Expenditures on Canals Charged to Consolidated Deficit Account, Years Ended Mar. 31, 1947 and 1948

NOTE.—Compiled from the Annual Reports of the Department of Transport.

#### EXPENDITURES ON IMPROVEMENTS

Item	Years ended Mar. 31—		Total to Mar. 31, 1948	Item	Years Ended Mar. 31—		Total to Mar. 31, 1948
	1947	1948			1947	1948	
	\$	\$			\$	\$	
Main Canals—				Secondary Canals—			
Quebec Canals—				Carillon and Grenville.	15,708	—	653,366
Beauharnois (old)....	—	—	355,640	Chambly (Richelieu R.)	2,461	—	1,257,063
Hungry Bay Dyke....	—	—	47,223	Rideau and Tay.....	10,001	41,460	1,152,204
Lachine.....	—	17,214	3,151,011	Ste. Anne.....	—	—	232,812
Lake St. Francis.....	—	—	55,324	St. Ours (Richelieu R.)	—	—	199,633
Quebec Dredging				St. Peters, N.S.....	16,778	6,527	921,831
Fleet.....	—	7,954	104,676	Trent.....	102,572	59,684	4,517,439
Soulanges.....	—	12,159	621,694	Murray.....	10,976	59,929	213,459
Ontario-St. Lawrence				Miscellaneous—			
Canals—	—	—	322,406	Bay Verte, Chignecto,	—	—	44,388
Cornwall.....	2,474	9,576	790,661	N.S.....	—	—	—
Williamsburg.....	1,747	5,025	465,988	Culbute Lock and Dam	—	—	60,923
Welland Canals—				(Ottawa R.).....	—	—	—
Welland Ship.....	38,500	146,473	1,622,831	St. Lawrence Ship	5,312	2,781	633,596
Prior Welland Canals.	—	—	2,650,121	(surveys, etc.).....	—	—	572,990
Sault Ste. Marie.....	537	977	549,221	Surveys and inspections	—	—	190,509
				Canals generally.....	—	—	—
				<b>Totals.....</b>	<b>207,066</b>	<b>369,759</b>	<b>21,387,009</b>

#### EXPENDITURES ON OPERATION AND MAINTENANCE

Item	Year Ended Mar. 31, 1947			Year Ended Mar. 31, 1948		
	Operation	Maintenance	Total	Operation	Maintenance	Total
	\$	\$	\$	\$	\$	\$
Administration, Ottawa....	44,005	—	44,005	47,461	—	47,461
Quebec Canals—						
Head office.....	41,280	—	41,280	43,370	—	43,370
Carillon and Grenville						
Canals.....	44,844	64,449	109,293	51,185	98,941	150,126
Chambly (Richelieu R.)..	57,771	37,245	95,016	63,722	51,416	115,138
Hungry Bay and Ste.						
Barbe Dykes.....	—	2,576	2,576	—	5,079	5,079
Lachine.....	246,568	149,266	395,834	261,872	197,613	459,485
Quebec Dredging Fleet...	32,283	11,634	43,917	26,652	22,296	48,948
Soulanges.....	97,594	77,673	175,267	107,144	91,890	199,034
Ste. Anne.....	8,016	5,051	13,067	9,439	5,999	15,438
St. Ours (Richelieu R.)...	8,212	8,981	17,193	9,065	6,434	15,499
Ontario-St. Lawrence						
Canals—						
Head office.....	40,158	10,941	51,099	41,099	13,035	54,134
Cornwall.....	117,775	106,745	224,520	135,600	105,145	240,745
Williamsburg.....	84,753	25,048	109,801	86,681	39,031	125,712
St. Peters, N.S.....	19,376	3,600	22,976	21,329	2,387	23,716
Rideau and Tay Canals....	136,432	118,128	254,560	152,682	118,853	271,535
Sault Ste. Marie.....	56,738	39,500	96,238	64,199	32,748	96,947
Trent.....	202,729	57,232	259,961	229,463	90,906	320,369
Murray.....	10,742	4,659	15,401	9,480	3,235	12,715
Welland Canals.....	585,096	299,967	885,063	618,975	398,940	1,017,915
<b>Totals.....</b>	<b>1,834,372</b>	<b>1,022,695</b>	<b>2,857,067</b>	<b>1,979,418</b>	<b>1,283,948</b>	<b>3,263,366</b>

### 24.—Marine Service Expenditures Charged to Consolidated Deficit Account, Years Ended Mar. 31, 1947 and 1948

NOTE.—Compiled from the Annual Reports of the Department of Transport.

Item	1947	1948	Item	1947	1948
	\$	\$		\$	\$
Marine Service—administration.....	14,660	23,827	Breaking ice—Thunder Bay....	30,000	30,000
Floating Equipment—administration.....	23,254	25,926	North Atlantic ice patrol.....	9,000	26,229
Nautical Services—administration.....	27,364	29,118	Steamship inspection.....	227,640	238,021
Maintenance and operation of steamers (including ice-breakers).....	2,025,393	2,460,795	Agencies, salaries and office expenses.....	293,901	307,216
Navigation and shipping—miscellaneous.....	57,910	76,918	St. Lawrence Ship Channel—maintenance and operation... Payment during 1947-48 of half the cost of operation and maintenance of pilot vessels at Halifax.....	197,058	250,345
Life Saving Service.....	42,462	63,694	Grants to sailors' institutes.....	400	600
Marine Signal Service.....	102,960	119,695	Pensions to pilots.....	2,083	2,475
Administration of pilotage.....	168,727	206,385	Compassionate allowances.....	4,102	480
Subsidies for wrecking plants.....	45,000	45,000	Government Employees' Compensation Act.....	20,778	21,953
Aids to navigation (construction, maintenance and supervision).....	2,693,197	2,902,300	Government Employees' Compensation Act Newfoundland Appendix (23).....	—	121
Maintenance and repairs to wharves.....	2,405	2,332	Marine Service—War Appropriations.....	103,357	86,493
			<b>Totals.....</b>	<b>6,091,651</b>	<b>6,939,923</b>

### 25.—Expenditures on Waterways Charged to Consolidated Fund Account by Department of Public Works, Years Ended Mar. 31, 1947 and 1948

NOTE.—Compiled from the Annual Reports of the Departments concerned by the Comptroller of the Treasury, Department of Finance.

Year and Item	Dredging	Construction	Improvements and Repairs	Staff and Sundries	Total
	\$	\$	\$	\$	\$
<b>1947</b>					
Harbours <sup>1</sup> and Rivers—					
Prince Edward Island.....	111,418	342,664	76,792	17,909	548,783
Nova Scotia.....	583,302	745,001	459,761	66,199	1,854,263
New Brunswick.....	102,408	25,789	92,296	287,939	508,432
Quebec.....	273,546	1,504,918	352,640	421,410	2,552,514
Ontario.....	624,284	319,495	329,797	150,335	1,423,911
Manitoba.....	52,185	242,803	21,092	66,352	382,432
Saskatchewan.....	183	—	—	1,219	1,402
Alberta.....	19,539	—	4,829	17,397	41,765
British Columbia.....	332,910	437,577	255,206	445,676	1,471,369
Yukon.....	—	—	—	—	—
Northwest Territories.....	—	38,266	1,729	—	39,995
General.....	—	—	—	25,105	25,105
<b>TOTALS HARBOURS<sup>1</sup> AND RIVERS.....</b>	<b>2,099,775</b>	<b>3,656,513</b>	<b>1,594,142</b>	<b>1,499,541</b>	<b>8,849,971</b>
Dredging plant.....	—	201,073	27,191	—	228,264
Roads and bridges.....	—	338,644	31,773	61,708	432,125
<b>Totals, 1947.....</b>	<b>2,099,775</b>	<b>4,196,230</b>	<b>1,653,106</b>	<b>1,561,249</b>	<b>9,510,360</b>
<b>1948</b>					
Harbours <sup>1</sup> and Rivers—					
Prince Edward Island.....	147,683	151,616	160,734	19,828	479,861
Nova Scotia.....	986,246	1,084,440	768,671	75,540	2,914,898
New Brunswick.....	209,555	196,920	140,209	291,420	838,104
Quebec.....	259,062	1,909,343	499,355	818,469	3,486,228
Ontario.....	971,559	836,434	780,968	329,488	2,918,449

<sup>1</sup> Exclusive of harbours under the National Harbours Board as shown in Table 27.



**25.—Expenditures on Waterways Charged to Consolidated Fund Account by Department of Public Works, Years Ended Mar. 31, 1947 and 1948—concluded**

Year and Item	Dredging	Construction	Improvements and Repairs	Staff and Sundries	Total
	\$	\$	\$	\$	\$
<b>1948</b>					
Harbours <sup>1</sup> and Rivers—concluded					
Manitoba.....	103,495	281,511	11,298	60,695	456,999
Saskatchewan.....	196	—	—	1,238	1,433
Alberta.....	32,569	—	3,813	29,070	65,453
British Columbia.....	497,452	973,788	524,856	423,535	2,419,631
Yukon.....	5,955	—	—	—	5,955
Northwest Territories.....	1,590	14,933	1,252	—	17,775
General.....	—	—	—	22,245	22,245
<b>TOTALS, HARBOURS<sup>1</sup> AND RIVERS.....</b>	<b>3,215,362</b>	<b>5,448,985</b>	<b>2,891,156</b>	<b>2,071,528</b>	<b>13,627,031</b>
Dredging plant.....	—	304,814	14,485	—	319,299
Roads and bridges.....	—	—	74,026	88,625	162,652
<b>Totals, 1948.....</b>	<b>3,215,362</b>	<b>5,753,799</b>	<b>2,979,667</b>	<b>2,160,153</b>	<b>14,108,982</b>

<sup>1</sup> Exclusive of harbours under the National Harbours Board as shown in Table 27.

**26.—Revenues of the Federal Government in connection with Waterways, Years Ended Mar. 31, 1947 and 1948**

NOTE.—Compiled from Annual Reports of the Departments concerned by the Comptroller of the Treasury, Department of Finance.

Item	1947	1948	Item	1947	1948
	\$	\$		\$	\$
<b>Department of Transport</b>					
<b>CANALS SERVICE</b>			<b>MARINE SERVICE—concluded</b>		
Lachine.....	261,349	267,980	Marine steamers' earnings.....	1,491	100
Soulages.....	1,153	1,958	Signal station dues.....	943	1,083
Chambly.....	1,722	1,814	Rents.....	10,252	8,837
St. Anne Lock.....	207	213	Miscellaneous sales including		
Carillon and Grenville.....	470	474	salvage material.....	—	394
Beauharnois.....	63,198	66,784	Sale of publications.....	1,730	1,510
Cornwall.....	52,652	40,276	Premium, discount and		
Williamsburg.....	11,738	5,248	exchange.....	4	1
St. Peters.....	207	198	Sundry services.....	948	1,127
Welland Canals.....	357,063	514,511	Nautical discharge certificates	504	1,525
Sault Ste. Marie.....	870	1,406	Dominion lighthouse depot—		
Rideau.....	15,242	17,903	Prescott — Cash Surplus —		
Trent.....	87,877	84,574	War 1939-45.....	2,410	—
Murray.....	309	460	Power service.....	10	4
Fines and forfeitures.....	265	797	Salvage material.....	2	—
Sale of publications.....	1,370	1,023	Sundry sales.....	12,367	—
Premium, discount and			Rental, employees' quarters...	515	537
exchange.....	6	4	Rental of equipment.....	9,682	12,346
Sundry services.....	1,575	1,611	Recovery of court cases.....	—	131
Sundry sales.....	34	256	Refund of previous year's ex-		
Salvage material.....	127	—	penditure.....	10,938	53,034
Rental of equipment.....	5,564	8,000	War 1939-45.....	24,368	8,612
Refund of previous year's					
expenditures.....	1,637	1,917	<b>TOTALS, MARINE SERVICE.....</b>	<b>526,309</b>	<b>562,933</b>
<b>TOTALS, CANALS SERVICE.....</b>	<b>864,635</b>	<b>1,017,412</b>			
<b>MARINE SERVICE</b>			<b>BOARD OF TRANSPORT</b>		
Fines and forfeitures.....	39,494	43,085	<b>COMMISSIONERS</b>		
Steamship inspection.....	172,700	168,794	Licences to ships.....	1,911	1,906
Wharf revenue.....	186,616	209,042	Sale of publications.....	55	55
Harbour dues.....	41,069	42,868	<b>TOTALS, BOARD OF TRANSPORT</b>		
Measuring surveyors' fees.....	4,560	4,234	<b>COMMISSIONERS.....</b>	<b>1,966</b>	<b>1,961</b>
Examinations—masters' and					
mates' fees.....	5,239	5,481	<b>Totals, Dept. of Transport</b>	<b>1,392,911</b>	<b>1,582,306</b>
Pilots licence fees (Pilotage)...	327	72			
Marine registry fees.....	140	116			

**26.—Revenues of the Federal Government in connection with Waterways, Years  
Ended Mar. 31, 1947 and 1948—concluded**

Item	1947	1948	Item	1947	1948
	\$	\$		\$	\$
<b>Department of Public Works</b>			<b>WORKS AND PLANTS LEASED</b>		
EARNINGS OF DRY DOCKS			Kingston dry dock.....	9,025	—
Champlain Dock, Lauzon,			Ferry privileges.....	452	446
Que.....	71,065	66,215	Dredges and plants.....	13,022	68,695
Lorne Dock, Lauzon, Que....	26,650	35,959	TOTALS, LEASES.....	22,499	69,141
Esquimalt new dock.....	141,399	118,425	Sale of old furniture, materials etc.....	1	—
Esquimalt old dock.....	10,972	13,149	Sale of real estate.....	—	—
Selkirk repair slip.....	1,547	3,033	Rents from water lots, etc....	12,661	14,900
TOTALS, EARNINGS.....	251,633	236,781	Refunds against expenditures reported in previous years...	12,462	35,028
			Sundry receipts.....	2,150	332
			<b>TOTALS, DEPT. OF PUBLIC WORKS.....</b>	<b>301,406</b>	<b>356,182</b>

**27.—Operating Revenues and Expenditures of Harbours, Elevators and Bridges  
Under the National Harbours Board, 1944-48**

Item and Year	Operating Revenues	Operating Expenses	Operating Income	Item and Year	Operating Revenues	Operating Expenses	Operating Income
	\$	\$	\$		\$	\$	\$
<b>Halifax—</b>				<b>Vancouver—</b>			
1944.....	1,801,217	1,116,104	685,113	1944.....	2,138,667	916,768	1,221,899
1945.....	1,653,732	1,033,935	619,797	1945.....	2,199,550	956,434	1,243,116
1946.....	1,243,649	834,713	408,936	1946.....	2,184,238	918,664	1,265,574
1947.....	1,161,261	800,168	361,093	1947.....	2,206,235	1,142,027	1,064,208
1948.....	1,270,564	862,529	408,035	1948.....	2,311,011	1,293,633	1,017,378
<b>Saint John—</b>				<b>Churchill—</b>			
1944.....	1,423,537	512,482	911,055	1944.....	71,028	128,635	-57,607
1945.....	1,458,507	494,698	963,809	1945.....	66,785	152,666	-85,881
1946.....	933,497	459,627	473,870	1946.....	72,713	173,225	-100,512
1947.....	945,198	488,756	456,442	1947.....	218,061	284,725	-66,664
1948.....	805,364	472,365	332,999	1948.....	278,712	321,337	-42,625
<b>Chicoutimi—</b>				<b>Port Colborne Elevator—</b>			
1944.....	31,924	18,402	13,522	1944.....	239,703	97,107	142,596
1945.....	30,723	20,719	10,004	1945.....	292,777	145,711	147,066
1946.....	32,666	17,178	15,488	1946.....	223,631	140,494	83,137
1947.....	40,573	21,407	19,166	1947.....	208,871	142,265	66,606
1948.....	50,310	20,512	29,798	1948.....	252,185	189,414	62,771
<b>Quebec—</b>				<b>Prescott Elevator—</b>			
1944.....	913,706	669,903	243,803	1944.....	257,750	110,575	147,175
1945.....	944,190	797,714	146,476	1945.....	195,723	119,422	76,301
1946.....	672,264	678,427	-6,163	1946.....	111,911	101,812	10,099
1947.....	627,732	691,609	-63,877	1947.....	136,750	119,687	17,063
1948.....	684,128	833,283	-149,155	1948.....	120,037	160,253	-40,216
<b>Three Rivers—</b>				<b>Jacques Cartier Bridge (Montreal)</b>			
1944.....	224,934	55,490	169,444	1944.....	600,238	99,098	501,140
1945.....	294,648	32,165	262,483	1945.....	604,629	105,422	499,207
1946.....	229,882	29,822	200,060	1946.....	730,701	113,337	617,364
1947.....	235,765	50,242	185,523	1947.....	835,097	118,779	716,318
1948.....	219,712	43,264	176,448	1948.....	974,764	129,372	845,392
<b>Montreal—</b>				<b>Second Narrows Bridge (Vancouver)</b>			
1944.....	4,698,030	2,212,489	2,485,541	1944.....	137,585	62,037	75,548
1945.....	5,484,859	2,928,685	2,556,174	1945.....	169,701	63,677	106,024
1946.....	4,897,323	2,937,201	1,960,122	1946.....	189,076	61,925	127,151
1947.....	4,990,919	3,083,883	1,907,036	1947.....	224,447	67,226	157,221
1948.....	5,608,899	3,186,639	2,422,260	1948.....	255,096	95,974	159,122

**Canadian Maritime Commission.**—By authority of an Act (11 Geo. VI, c. 52) passed in the 1947 session of Parliament, the Canadian Maritime Commission was constituted for the purpose of examining into, keeping records of, and advising the Minister of Transport on matters pertaining to Canadian shipping and ship-building services.

In addition to these duties the Act also empowers the Commission to:—

- (1) exercise and perform on behalf of the Minister such powers, duties and functions of the Minister under the Canada Shipping Act, 1934, as the Minister may require;
- (2) administer, in accordance with regulations of the Governor in Council, any steamship subventions voted by Parliament; and
- (3) exercise or perform any other powers, duties or functions conferred on or required to be performed by the Commission by or pursuant to any other Act or order of the Governor in Council.

Since the Canadian Maritime Commission was created, it has assumed all responsibilities for the administration of steamship subventions which had formerly been under the jurisdiction of the Department of Trade and Commerce.

As of Feb. 1, 1948, the Park Steamship Company, Limited, a Crown Company formed to administer and operate wartime shipping constructed in Canada as a war measure, was transferred from the Department of Reconstruction and Supply to the Canadian Maritime Commission.

All the vessels constructed during the war years for operation by the Park Steamship Company, Limited, have been sold. Private Canadian operators purchased them under agreement that they would not be transferred out of Canadian registry except by permission of the Crown; a Government announcement, dated May 13, 1948, made public that such transfers might be made providing sanction was first obtained from the Canadian Maritime Commission, which body would deal with each application on its individual merits. The proceeds from the sale of such vessels are to be deposited in escrow and used for replacement by new merchant vessels of modern design and of a type and cost approved by the Commission.

**Shipping Subsidies.**—The figures given in Table 28 represent the amounts paid in connection with contracts made under statutory authority by the Canadian Maritime Commission for coastal and inland water shipping services, including the conveyance of mails on certain routes.

**28.—Mail Subsidies and Steamship Subventions, Years Ended Mar. 31, 1947-49**

Service	1947	1948	1949
	\$	\$	\$
<b>Pacific Coast Services—</b>			
Prince Rupert, B.C., and Queen Charlotte Islands.....	32,000	194,320	179,935
Vancouver and northern ports of British Columbia.....	37,000	224,680	208,065
Victoria, Vancouver, way ports and Skagway.....	10,000	6,875	—
Victoria and west coast Vancouver Island.....	10,000	10,000	70,000
<b>Local Services—</b>			
Baddeck and Iona.....	12,000	12,000	12,000
Campobello, N.B. and Lubec, Me.....	1,789	3,000	3,333
Chester and Tanook Island (winter).....	2,700	2,640	440
Dalhousie and Miguasha.....	12,000	12,000	12,000
Deer Island, Campobello Island and St. Stephen, N.B.....	167	2,000	2,000
Grand Manan and the mainland.....	60,962	85,000	85,000
Halifax, Canso and Guysborough.....	25,022	20,000	20,000
Halifax, LaHave and LaHave River ports.....	3,000	3,000	1,500
Halifax, Sherbrooke, Spry Bay and Torbay.....	6,500	11,200	11,200
Halifax and west coast of Cape Breton.....	6,000	6,000	6,000
Ile aux Coudres and Les Eboulements.....	3,500	3,500	16,000
Ile aux Grues and Montmagny.....	2,500	2,500	2,500



**28.—Mail Subsidies and Steamship Subventions, Years Ended Mar. 31, 1947-49**  
—concluded

Service	1947	1948	1949
	\$	\$	\$
<b>Local Services—concluded</b>			
Ile aux Coudres and Quebec or Lévis.....	4,000	4,000	—
Mulgrave and Arichat.....	25,000	25,000	27,000
Mulgrave and Canso.....	64,000	64,000	76,500
Mulgrave and Guysborough, calling at intermediate ports.....	14,000	14,000	16,500
Murray Bay and north shore (winter service).....	50,000	50,000	50,000
Owen Sound and Manitoulin Islands.....	41,051	66,000	65,000
Pelee Island and the mainland.....	11,000	11,000	11,000
Pictou, Mulgrave and Cheticamp.....	11,000	11,000	13,500
Pictou, Souris and the Magdalen Islands.....	60,000	60,000	88,000
Prince Edward Island and Newfoundland.....	54,000	54,000	54,000
Prince Edward Island and Nova Scotia.....	78,226	100,000	100,000
Quebec, Natashquan and Harrington, and other ports on the north shore of the Gulf of St. Lawrence.....	127,500	281,500	448,000
Quebec or Montreal and Gaspé, and other ports on the south shore of the Gulf of St. Lawrence.....	90,000	138,000	156,500
Rimouski, Matane, and the north shore of the Lower St. Lawrence.....	75,000	75,000	125,500
Rivière-du-Loup and Tadoussac, and other north-shore ports.....	21,000	21,000	21,000
Saint John and Minas Basin ports.....	—	10,000	10,000
Saint John, Westport and Yarmouth, and other way ports.....	30,500	31,500	31,500
Sydney and Bay St. Lawrence, calling at way ports.....	35,000	35,000	35,000
Sydney and Bras d'Or Lake ports, and ports on the west coast of Cape Breton and Prince Edward Island.....	22,500	22,500	27,500
Sydney and Whytecomagh.....	20,500	20,500	20,500
Yarmouth, N.S. and Boston, Mass.....	43,000	28,667	28,166
<b>Totals.....</b>	<b>1,102,417</b>	<b>1,721,382</b>	<b>2,035,139</b>

## PART V.—CIVIL AIR TRANSPORTATION\*

### Section 1.—Administration and Development†

**Historical Developments.**—Canada's aviation history dates back to 1909 when the *Silver Dart* piloted by Jack McCurdy (now the Hon. J. A. D. McCurdy, Lieutenant-Governor of Nova Scotia) flew at Baddeck, N.S. This was the first aeroplane flight by a British subject in the British Empire.

There was little aviation development in this country until the First World War. Following the War, many of Canada's wartime aviators assisted in developing air transportation services into inaccessible areas, air forestry patrols and inter-city air services. During this period, the flying clubs movement received Government assistance in the training of pilots and engineers required by Canada's civil aviation industry.

The Department of Transport was created in 1936 to centralize all transportation services coming under Federal jurisdiction. One of the branches of this new Department was the Air Services Branch which combined the Civil Aviation Division, formerly attached to the Department of National Defence, and the Department of Marine's Meteorological and Radio Divisions. Under the Department of Transport, the trans-Canada airways system was developed by the construction of a chain of airports, intermediate aerodromes and other air facilities. The Trans-Canada Air Lines came into being by Act of Parliament in 1937 to provide for the development of a government-controlled transcontinental air service.

\* For military air transportation, see Chapter XXVII on Defence of Canada.

† Sections 1 and 2 of Part V of this Chapter were revised in the Department of Transport and Section 3, except where otherwise indicated, in the Transportation Division, Dominion Bureau of Statistics.

The Second World War was a period of intensive construction of airports and aerodromes to meet the requirements for training of airmen under the British Commonwealth Air Training Plan. At the end of the War, many service-trained Canadian airmen turned to commercial flying and were absorbed in existing operating companies or helped to develop other flying services. Transatlantic air services, which were inaugurated by the Department of Transport during the War, were turned over to Trans-Canada Air Lines for operation as regular scheduled operations.

Canadian Pacific Air Lines was created by the amalgamation of small commercial operators for the servicing of Canada's northland. The Canadian Pacific Air Lines has been designated to provide trans-Pacific services on behalf of Canada. Canadian Pacific Air Lines began its scheduled operations from Vancouver to Australia and New Zealand in July, 1949, and expected to begin operating a service to Japan, China and Hong Kong later in the year.

**The Control of Civil Aviation.**--The control of civil aviation in Canada is under the jurisdiction of the Federal Government and is administered under the authority of the Aeronautics Act, 1919, and amendments thereto. The Aeronautics Act is in three parts. Broadly speaking, Part I deals with the technical side of civil aviation, comprising matters of registration of aircraft, licensing of airmen, the establishment and maintenance of airports and facilities for air navigation, air-traffic control, accident investigation and the safe operation of aircraft. This part of the Act is administered by the Controller of Civil Aviation under the supervision of the Director of Air Services, Department of Transport. Part II of the Act deals with the social and economic aspects of commercial air services and assigns to the Air Transport Board certain statutory functions with respect to the issue of licences to operate commercial air services, and the subsequent economic regulation of commercial air services in accordance with the dictates of the public interest. Part III of the Act deals with matters of internal government administration in connection with the Act.

**Recent Developments.**--Scheduled operations of the Great Lakes air route, that went into operation in 1947, have been expanded. This shorter line in the trans-Canada airways system was completed with the co-operation of United States authorities, by the construction of intermediate airports on the south shore of Lake Superior.

Instrument Landing Systems (I.L.S.) to facilitate safe landings under low visibility conditions have been installed at seven major airports in Canada and installations are being made at nine other airports. Canada was to the forefront among air-minded nations in the installation of I.L.S. which was adopted in July, 1949, by the International Civil Aviation Organization for international flying.

Twelve of Canada's civil airports extending from coast to coast are now regular ports of call for international commercial air services. Considerable research has been made into the problem of constructing airports to withstand the weight of modern transport aircraft and in this Canada has developed an economical airport design that is meeting the requirements of both national and international aviation.

Further expansion of the aviation weather forecasting services, provided by the Meteorological Division, has been made possible by the establishment of weather observing stations in sparsely populated Arctic and sub-Arctic regions including

outposts on the most northerly islands bordering the Arctic Ocean. Canada also maintains a weather-ship stationed in the Atlantic between Newfoundland and Greenland for assisting transatlantic aviation.

The radio range system, which provides radio beams for guiding aircraft along the airways under all weather conditions, has kept abreast of the extensive development of airways and the demands of civil aviation. Other radio facilities for aviation have been developed and put into operation.

Marked progress is reflected in the continuous increase in scheduled airline operations both within Canada and beyond its boundaries. In addition to transportation, agriculture, forestry and industry have benefited greatly by such operations as aerial dusting, photography and surveys.

In the field of commercial aircraft, the four-engined *North Star* airliner manufactured by Canadair Limited, and the single-engined *Beaver* manufactured by de Havilland Aircraft of Canada, Limited, are two newcomers which, in their respective fields, have played a most important part.

In the field of international civil aviation, Canada has played a prominent part through participation of its personnel in the deliberations of the International Civil Aviation Organization, with its headquarters at Montreal, Que.

**Flying Training.**—A new Flying Training Plan for Canada went into operation on Jan. 1, 1949, whereby approved flying clubs and schools as well as qualifying student pilots receive Federal Government grants for flying training. Clubs and schools benefiting under this Plan are required to provide flying training conforming to the Department of Transport's approved course of pilot training. Student pilots are required to qualify for a Department of Transport private pilot licence in accordance with the agreed international standards set by the International Civil Aviation Organization.

Under the Flying Training Plan, clubs and schools receive \$100 for each individual granted a private pilot licence obtained *ab initio* at a club or school. Students qualifying as private pilots and receiving a Department of Transport licence receive a grant of \$100. Students who have qualified for a Department of Transport private pilot licence may qualify for an additional \$100 grant on being accepted into the Royal Canadian Air Force Active Force, Reserve or Auxiliary under special Royal Canadian Air Force requirements.

**Royal Canadian Flying Clubs.**—In the spring of 1949 there were 36 member clubs of the Royal Canadian Flying Clubs Association with a total individual membership of 6,300, an increase of approximately 100 p.e. over the corresponding period in 1948. Revenue flying hours for the year ended Mar. 31, 1949, numbered 34,436, utilizing 156 aircraft.

On behalf of a committee under the chairmanship of the Controller of Civil Aviation, the Royal Canadian Flying Clubs Association sponsors and conducts the Webster Memorial Trophy Competition for amateur pilots. The Association also provides scholarship flying training for Canadian air cadets.

**Air Industries and Transport Association.**—Commercial flying schools which are members of the Air Industries and Transport Association, numbered 94 on Mar. 31, 1949. Student enrolment in these schools totalled 1,803 as compared with 1,558 in the preceding year. Instructional hours flown during the year numbered 39,114, utilizing 247 aircraft.



**International Air Agreements.**—Its position in the field of aviation as well as its geographical location makes it imperative that Canada should co-operate with other nations of the world engaged in international civil aviation. Canada played a major part in the original discussions that led to the establishment of the International Civil Aviation Organization, generally known as ICAO, which now has its headquarters at Montreal. Canada has actively participated in the deliberations of ICAO and its many committees, and as a result has secured the benefit of the joint knowledge and experience of all member states in the technical and economic aspects of all phases of civil aviation.

In recent years Canada was a signatory to the following Agreements concerning civil aviation:—

Exchange of Notes (July 28, 1938) recording an Agreement between Canada and the United States of America relating to Air Navigation. (Effective Aug. 1, 1938.)

Exchange of Notes (July 28, 1938) recording an Agreement between Canada and the United States of America relating to the Issuance of Certificates of Competency or Licences for the Piloting of Civil Aircraft. (Effective Aug. 1, 1938.)

Exchange of Notes (July 28, 1938) recording an Agreement between Canada and the United States of America relating to Certificates of Airworthiness for Export. (Effective Aug. 1, 1938.)

Memorandum of Agreement between Canada and Newfoundland relating to the establishment of an Air Base at Goose Bay, Labrador. Signed at St. John's, Newfoundland, Oct. 10, 1944.

Exchange of Notes (Feb. 17, 1945) between Canada and the United States of America recording an Agreement for Civil Air Transport. (Effective Feb. 19, 1945.) (New York Agreement.)

Exchange of Notes (Apr. 10 and 12, 1947) between Canada and the United States of America amending the Exchange of Notes (Feb. 17, 1945) between the two countries recording an Agreement for Civil Air Transport.

Agreement for Air Services between Canada and the United Kingdom. Signed at Bermuda, Dec. 21, 1945.

Agreement for Air Services between Canada and Australia. Signed at Ottawa, June 11, 1946.

Agreement between the Governments of Canada and Newfoundland on Air Transport between Canada and Newfoundland. Signed at St. John's, July 29, 1946.

Agreement between the Government of Canada and the Government of Portugal for Air Services between Canadian and Portuguese Territories. Signed at Lisbon, Apr. 25, 1947.

Exchange of Letters (Jan. 31 and Feb. 1, 1947) between Canada and the United Kingdom constituting an Agreement concerning the Grant to Airlines of Traffic Rights in Fiji and Canton Islands.

Agreement between the Government of Canada and the Government of Sweden for Air Services between Canadian and Swedish Territories. Signed at Ottawa, June 27, 1947.

Exchange of Notes (June 27 and 28, 1947) between Canada and Sweden supplementing the Agreement for Air Services between Canadian and Swedish Territories, dated June 27, 1947.

Agreement between Canada and the United Kingdom concerning the Establishing of Air Communications between the Territory of Canada and United Kingdom Territories in the West Atlantic and Caribbean Areas. Signed at Ottawa, July 17, 1947.

Agreement between Canada and Ireland for Air Services between the two countries (signed at Dublin, Aug. 8, 1947) with Exchange of Notes (Apr. 19, May 31 and June 3, 1948) amending the Agreement.

Agreement between Canada and the Netherlands for Air Services between the two countries. Signed at Ottawa, June 2, 1948.

Exchange of Notes recording an Agreement regarding the Use of Radio for Civil Aeronautical Services. Signed at Washington, Feb. 20, 1939.

Convention on International Civil Aviation. Signed at Chicago, Dec. 7, 1944.

International Air Services Transit Agreement. Signed by Canada, Feb. 10, 1945.

International Agreement on North Atlantic Ocean Weather Station. Signed at London, Sept. 25, 1946.

Agreement concerning the Operation of Icelandic Station of the North Eastern Loran Chain. Signed at Montreal, Apr. 30, 1947. (Treaty Series No. 13, 1947.)

Convention for the Unification of certain rules relating to International Carriage by Air. Signed at Warsaw, Oct. 12, 1929. Canada became a signatory to the Convention by Proclamation, dated June 13, 1947.

**Recent Bilateral Air Agreements.**—As a result of the entry of Newfoundland into union with Canada on Mar. 31, 1949, new Agreements have been signed between Canada and the United States, the United Kingdom and Belgium.

On the North Atlantic, Trans-Canada Air Lines has been given new rights in the United Kingdom for traffic from Ireland, Iceland and the Azores. It has been given rights in Brussels by the Belgian Government, adding another possible continental stop to the one previously granted at Amsterdam in the Netherlands.

On the Caribbean route, Canada has obtained rights from the United States for a traffic stop at Tampa—St. Petersburg, Florida, and additional points of call at British territories in the Caribbean, notably Barbados, Antigua and British Guiana.

In the trans-Border field Canada is conducting negotiations to obtain the right for Trans-Canada Air Lines to operate from Montreal to New York.

In the Pacific, new agreements provide that on its South Pacific run Canadian Pacific Air Lines may also make traffic calls at Honolulu and at Fiji. On the North Pacific route Canadian Pacific Air Lines has been given traffic rights at Hong Kong.

## Section 2.—Air Services

Air Transport Services are grouped into two broad classes—Scheduled Services and Non-Scheduled Services:

*Scheduled Services.*—These provide regular point-to-point service on scheduled advertised routes.

*Non-Scheduled Services.*—These include:—

- (1) Specific Point Services from a designated base to specific points on the basis of unit rates that may be undertaken as the traffic warrants and that are not on a time schedule;
- (2) Chartered Services operated on the basis of the private chartering of an entire aircraft for a specific trip;
- (3) Contract Air Services which operate on one or more specific contracts. These do not operate on a time schedule nor need the contractor take the entire space of the plane;
- (4) Specialty Air Services concerned with large-scale forestry and utility surveys according to some specific agreement.

**Trans-Canada Air Lines.**—Air traffic over the Trans-Canada Air Lines was greatly increased in 1948-49 by the addition of 20 40-passenger North Star aircraft to the Company's fleet, thus enabling modern air transportation to be provided on a large scale. Travel and shipping time has been reduced by the introduction of this faster and larger Canadian-built equipment. The new aircraft were placed in transcontinental service on June 1, 1948, flying two round trips daily between Montreal and Vancouver with stops at Toronto, Winnipeg and Calgary and reducing transcontinental travel time to 14 hours.

Local services in the Prairie Provinces in 1948-49 were extended by including Brandon and Yorkton on the Winnipeg-Regina route. The prairie cities of Lethbridge, Edmonton, Saskatoon, Regina, Medicine Hat and Swift Current were linked by feeder service to the mainline route. Flight frequency of the Ontario service between Toronto, North Bay, Porquis Junction and Kapuskasing was placed on a daily basis. A second daily flight was added between Toronto, Sault Ste. Marie, the Lakehead and Winnipeg. Direct operations commenced between Sydney, N.S., Moncton and Saint John, N.B.

In the domestic service of Trans-Canada Air Lines, 562,170 passengers, 2,772,985 ton miles of mail and 1,581,879 ton miles of commodity traffic were carried during the year ended Mar. 31, 1949. This compares with 438,549 passengers, 1,311,764 ton miles of mail and 645,771 ton miles of commodity traffic in the previous year. These figures include the emergency service provided in British Columbia in a three-week period in the early summer when all surface connections with that Province were severed by floods. Flying its larger aircraft across the Rocky Mountains in as many as six round flights a day, Trans-Canada Air Lines moved 9,000 persons, and 600,000 lb. of food and other essential cargo. Included also was the general carriage of first-class mail by air at unchanged postal rates. As a result of this service, Canadians now enjoy the most inexpensive air-mail service in the world.

At the end of 1949, the Trans-Canada Air Lines fleet consisted of 20 four-engined North Stars and 27 twin-engined DC-3's.

### 1.—Passenger, Freight and Mail Traffic of Trans-Canada Air Lines, 1939-48

Source: Trans-Canada Air Lines Annual Report.

Year	Revenue Passenger Traffic <sup>1</sup>		Revenue Freight Traffic <sup>2</sup>		Mail Traffic
	No.	Passenger miles	lb.	ton miles	ton miles
1939.....	21,569	12,068,661	67,729	41,749	306,252
1940.....	53,180	28,782,217	138,773	79,584	442,036
1941.....	85,154	44,248,124	286,116	132,352	720,150
1942.....	102,762	51,334,839	527,635	247,314	1,072,571
1943.....	140,276	78,508,427	1,114,206	526,363	1,623,802
1944.....	156,884	84,425,354	1,117,747	510,760	1,760,486
1945.....	183,121	106,088,111	1,261,935	500,687	1,571,180
1946.....	305,442	155,777,319	1,453,743	513,493	1,210,716
1947.....	427,967	179,808,562	2,041,315	764,105	1,275,909 <sup>3</sup>
1948.....	532,555	249,575,544	4,313,297	1,608,102	2,294,088

<sup>1</sup> Includes non-scheduled service. carried from Oct. 15 to Dec. 31.

<sup>2</sup> Includes excess baggage.

<sup>3</sup> Includes first-class mail



## 2.—Operating Revenues and Expenses of Trans-Canada Air Lines, 1939-48

Source: Trans-Canada Air Lines Annual Report.

Year	Passenger	Freight <sup>1</sup>	Mail	Total Operating Revenue <sup>2</sup>	Operating Expenses <sup>3</sup>	Net Surplus (+) or Deficit (-) <sup>4</sup>
	\$	\$	\$	\$	\$	\$
1939.....	643,915	27,554	1,632,873	2,350,474	2,586,744	-411,657
1940.....	1,574,217	48,681	2,832,363	4,592,383	3,855,734	+539,263
1941.....	2,348,428	97,153	3,058,121	5,807,794	5,306,136	+302,437
1942.....	3,065,453	202,480	3,211,922	7,337,318	6,628,399	+494,915
1943.....	4,213,599	390,163	3,515,807	9,379,501	8,974,902	+147,889
1944.....	4,456,768	376,516	3,802,395	9,192,522	8,948,388	+7,409
1945.....	5,462,940	361,177	4,250,939	10,512,588	10,250,272	+32,772
1946.....	8,047,124	378,185	3,780,509	12,810,805	13,926,061	-1,269,624
1947.....	10,450,524	534,359	3,808,197	15,297,347	16,796,492	-1,761,043
1948.....	14,469,578	888,917	4,648,775	20,866,936	21,624,057	-1,183,022

<sup>1</sup> Express and excess baggage. <sup>2</sup> Includes other revenue. <sup>3</sup> Interest and exchange charges excluded each year except in 1946, 1947 and 1948. <sup>4</sup> Includes interest on capital invested.

*Trans-Canada Air Lines (Atlantic) Limited.*—Additional to its transatlantic service, Trans-Canada Air Lines (Atlantic) opened two new international air services in 1948, one to Bermuda and the other to the British West Indies.

The Bermuda service began on May 1, 1948, with two round trips scheduled weekly from Montreal and Toronto. On Nov. 1, 1948, a third flight was added. Flying time is about five hours.

Operations to the Caribbean began on Dec. 2, 1948. This 3,000-mile route proceeds from Montreal to Toronto, Nassau (Bahamas), Kingston (Jamaica), and Port of Spain (Trinidad). Two flights are made weekly, one terminating at Jamaica and the other continuing to Trinidad.

Under charter contract first with the Province of Ontario and then with the Federal Government, Trans-Canada Air Lines brought to Canada 6,000 immigrants from the United Kingdom and the Continent in 175 westbound crossings during the year 1948-49. It was the largest mass movement of immigrants in air-transport history.

Overseas flights during the year ended Mar. 31, 1949, accommodated 39,796 passengers, 381,988 ton miles of mail and 1,099,393 ton miles of commodity transport. This compared with 17,657 passengers, 334,643 ton miles of mail and 662,116 ton miles of commodity transport in the preceding year.

*Canadian Pacific Air Lines Limited.*—Further progress in consolidating and improving established Canadian Pacific Air Line services and facilities was made in the year 1948-49. The Vancouver-Calgary service via the Okanagan Valley, which was inaugurated in 1947, continued to show satisfactory development and was extensively used for the special movement of passengers and goods during the British Columbia flood emergency in the summer of 1948.

Additional new routes operated during the year 1948-49 included the service between Vancouver and Whitehorse via Sandspit and between Dawson City and Aklavik. A licence was also granted for a scheduled service between Montreal and Val d'Or, Que. The Vancouver-Nanaimo service was abolished in 1948.

Canadian Pacific Air Lines route operations in Canada cover a distance of 9,770 miles and Company aircraft flew a distance of nearly 5,000,000 miles. During the year ended Mar. 31, 1949, 145,891 passengers, 1,882,034 lb. of air mail, and 7,309,663 lb. of freight were carried.

*Canadian Pacific Air Lines, Trans-Pacific Service.*—In 1948 the Government of Canada assigned to Canadian Pacific Air Lines the licence to operate trans-Pacific air services between Canada and points in Australia, New Zealand and the Far East. As a result, development and organization work progressed and orders were placed for the construction of Canadair four-engined aircraft for use on these new routes.

The trans-Pacific air service between Vancouver and Australia and New Zealand was inaugurated by Canadian Pacific Air Lines in July, 1949. The service between Vancouver and the Orient via Alaska, Shemya, Tokyo, Shanghai and Hong Kong went into operation on Sept. 19, 1949. These trans-Pacific services add more than 15,000 miles of route to the Canadian Pacific Air Lines service.

**Independent Air Lines.**—Additional to Trans-Canada Air Lines and Canadian Pacific Air Lines, there are seven other domestic air lines licensed to operate scheduled services in Canada. These are:—

Central Northern Airways, Limited, Winnipeg.  
Leavens Bros. Air Services, Limited, Toronto.  
Maritime Central Airways, Limited, Charlottetown, P.E.I.  
Northern Airways, Limited, Carcross, Y.T.  
Quebec Airways, Limited, Montreal, Que.  
Queen Charlotte Airlines, Limited, Vancouver, B.C.  
Wheeler Air Lines, Limited, St. Jovite, Que.

Most of the independent air lines are operating non-scheduled services which, with few exceptions, are charter services from designated bases. It is in this field that the greatest development has taken place in recent years.

Non-scheduled charter services and non-scheduled specific point services provide effective means of access to sections of Canada that are inaccessible by other means of transportation and also act as feeders to the scheduled air lines.

As at Mar. 31, 1949, the following operating certificates were in effect: scheduled domestic, 35; scheduled foreign, 10; non-scheduled, 216; and flying training, 115.

**Commonwealth and Foreign Scheduled Services.**—Operating certificates issued to Commonwealth and foreign scheduled services flying into Canada number nine and consist of the following:—

- (1) American Airlines Incorporated, operating between Toronto, Ont., and Buffalo, N.Y., and also the Canadian portion of the route between Buffalo, N.Y., and Windsor, Ont., and Detroit, Mich. (two certificates);
- (2) British Commonwealth Pacific Airlines, between Vancouver, B.C., and Sydney, N.S.W., Australia; and between Vancouver, B.C., and Auckland, New Zealand via Fiji Islands, Canton Island, Honolulu, and San Francisco;
- (3) British Overseas Airways Corporation between Montreal, Que., and London, England;
- (4) Colonial Airlines Incorporated, operating between Montreal, Que., or Ottawa, Ont., and Washington, D.C., via Massena, Watertown, Syracuse, Scranton-Wilkes-Barre, Reading and Baltimore; between Montreal or Ottawa and New York, N.Y., via Massena, Plattsburg, Burlington, Saranac Lake-Lake Placid, Rutland, Glens Falls and Albany (two certificates);
- (5) Northeast Airlines Incorporated, between Boston, Mass., and Montreal, Que., via Burlington, Barre-Montpelier and Concord;
- (6) Northwest Airlines Incorporated, between Fargo, N.D., and Winnipeg, Man., via Grand Forks;
- (7) Pan-American Airways Incorporated, operating between Seattle, Wash., and Fairbanks, Alaska, with refuelling stop at Port Hardy, B.C., or Comox, B.C., and points of call at Juneau, Alaska, and Whitehorse, Yukon;
- (8) United Air Lines, Incorporated, operating between Vancouver, B.C., and Seattle, Wash., via Bellingham, Wash.;
- (9) Western Air Lines Incorporated, between Lethbridge, Alta., and Great Falls, Montana.

### Section 3.—Civil Aviation Statistics

**Aircraft.**—The Canadian aircraft industry on Mar. 31, 1949, consisted of the following companies making the civilian type of aircraft named:—

Canadair Limited, Montreal, Que., manufacturers of the Canadair *North Star*, *Canadair Four* and the converted *Canadair Dakotas*;

Canadian Car and Foundry Company, Limited, Montreal, Que., manufacturers of the *Norseman*;

DeHavilland Aircraft of Canada, Limited, Toronto, Ont., manufacturers of the *Beaver*, *Chipmunk* and *Canso*;

Fairey Aviation Company of Canada, Limited, Eastern Passage, N.S., conversion of trainer aircraft;

MacDonald Bros. Aircraft, Limited, Winnipeg, Man., overhaul and conversion work;

Northwest Industries, Limited, Edmonton, Alta., overhaul and conversion work;

A. V. Roe Canada, Limited, Toronto, Ont., engaged in the design and construction of a jet-powered transport for inter-city operations, the *AVRO Jelliner*;

British Aeroplane Engines, Limited, Vancouver, B.C., overhauling work;

Canadian Pratt and Whitney Aircraft Company, Limited, Longueuil, Que., overhaul and maintenance work;

Canadian Wright, Limited, Montreal, Que., overhaul and testing work.

The principal statistics of the aircraft industry are shown for the latest available year in the Manufactures Chapter, Table 11, p. 607.

**Ground Facilities.**—Early ground facilities for civil aviation consisted chiefly of municipal or flying-club airports adjacent to the larger urban centres and of numerous terminals from which commercial flying services operated, mainly into the northern mining regions. These airports formed the nucleus which, with many additions and improvements, became the chain of airports constituting the Trans-Canada airways operated by the Department of Transport. To-day, Canada is well supplied with airports and aerodromes scattered throughout the country. The Department of Transport retained a certain number of the airports that had been constructed for war purposes and others were made available to municipalities for local use. The airports, airfields and anchorages in Canada are classified as in Table 3. At the bottom of the table a statement appears showing the airports and airfields equipped with control facilities and certain other facilities, by provinces.

#### 3.—Airports, Airfields and Anchorages, by Provinces, as at Mar. 31, 1948

NOTE.—Department of Transport figures, unlicensed airfields and anchorages not included.

Item	P. E. I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	N. W. T.	Y.T.	Total
Airports (land).....	2	10	8	29	74	19	17	30	43	13	18	263
Airports (water).....	—	1	1	8	21	18	4	5	10	9	1	78
<b>Totals, Landing Areas.....</b>	<b>2</b>	<b>11</b>	<b>9</b>	<b>37</b>	<b>95</b>	<b>37</b>	<b>21</b>	<b>35</b>	<b>53</b>	<b>22</b>	<b>19</b>	<b>341</b>
Canadian Pacific Air- lines airports (land) and airfields.....	—	—	—	10	1	1	—	1	1	—	5	19
Canadian Pacific Air- lines airports (water) and anchorages.....	—	—	—	8	6	8	4	2	3	—	1	32
Department of Mines and Resources airports (land) and airfields....	—	—	—	—	—	—	—	3	—	1	8	12



## 3.—Airports, Airfields and Anchorages, by Provinces, as at Mar. 31, 1948—concluded

Item	P. E. I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	N. W. T.	Y.T.	Total
Department of Mines and Resources airports (water)land anchorages	—	—	—	—	—	—	—	2	—	9	—	11
Department of Transport airports (land) and airfields.....	—	5	6	10	48	10	6	12	21	10	—	128
Municipal airports (land) and airfields.....	1	3	1	6	15	3	10	11	13	—	—	63
Municipal airports (water) and anchorages	—	—	—	—	—	1	—	1	2	—	—	4
Provincial Air Services airports (water) and anchorages.....	—	—	—	—	14	9	—	—	—	—	—	23
Royal Canadian Air Force airports (land) and airfields.....	1	2	1	1	10	5	1	3	8	1	5	38
Royal Canadian Air Force airports (water) and anchorages.....	—	1	1	—	1	—	—	—	5	—	—	8
United States Army Air Forces airports (land) and airfields....	—	—	—	2	—	—	—	—	—	1	—	3
<b>Control and Auxiliary Facilities—</b>												
Airports (land) and airfield control.....	—	2	1	5	9	4	1	4	5	2	1	34
Airports (water) control.....	—	1	1	—	1	—	—	—	—	—	—	3
Hard surfaced airports and airfields....	2	9	6	11	41	15	12	16	22	3	2	139
Lighted airports (land) and airfields.....	2	5	5	12	32	7	10	13	26	9	8	129
Lighted airports (water) and anchorages.....	—	1	—	1	—	—	—	—	5	—	—	7

*Air Traffic Control.*—The system of air traffic control established in Canada operates in accordance with standard international procedures and practices. This system is designed to expedite the flow of air traffic, to eliminate delays and traffic confliction, and to provide separation between aircraft flying during weather conditions which necessitate the use of flight instruments.

Air traffic control centres are located at Moncton, N.B., Montreal, Que., Toronto, Ont., Winnipeg, Man., Edmonton, Alta. and Vancouver, B.C. At Moncton two such centres are in operation, one for the control of domestic traffic and the other for the control of north-west Atlantic oceanic air traffic. All these centres are linked by a network of longline telephone and teletype facilities and, in addition, each centre is similarly connected to all the airport traffic control towers, aeronautical radio stations, meteorological stations and air-carrier despatch offices which are located within its assigned control area. Airport traffic control towers are operated by the Department at Moncton, N.B., Montreal and Cartierville, Que., Windsor, London, Toronto, North Bay and Ottawa, Ont., Winnipeg, Man., Regina, Sask., Edmonton, Lethbridge and Calgary, Alta., and Patricia Bay and Vancouver, B.C. These units are responsible for controlling, by means of radio and light signals, the air traffic within a radius of five miles of the airport concerned and for the orderly movement of traffic on the airport.

**Summary Operation Statistics.**—The statistics given in Table 4 show the increase in recent years in passenger and freight traffic.

#### 4.—Summary Statistics of Civil Aviation, 1942-47

NOTE.—Figures for 1942 and subsequent years will be found in the corresponding tables of previous Year Books beginning with the 1924 edition.

Item	1942	1943	1944	1945	1946	1947
Aircraft Miles Flown—						
Revenue.....No.	12,781,867	14,584,115	15,568,559	18,618,970	25,844,570	33,186,617
Non-revenue.....“	547,276	709,434	620,803	1,468,462	2,567,423	2,845,952
Totals.....“	13,329,143	15,293,549	16,189,362	20,087,432	28,411,993	36,032,569
Passengers Carried—						
Revenue.....No.	198,205 <sup>1</sup>	282,886 <sup>1</sup>	371,397 <sup>1</sup>	490,809 <sup>1</sup>	802,811	836,047
Non-revenue.....“	13,345 <sup>2</sup>	12,375 <sup>2</sup>	11,695 <sup>2</sup>	17,887 <sup>2</sup>	33,737	57,124
Totals.....“	229,047	314,642	403,938	525,407	836,548	893,171
Passenger Miles—						
Revenue.....No.	70,554,377	100,530,892	111,127,010	153,504,833	206,776,408	237,986,178
Non-revenue.....“	2,652,224	2,859,572	2,759,319	5,658,612	8,971,573	19,959,207
Totals.....“	73,206,601	103,390,464	113,886,329	159,163,445	215,747,981	257,945,385
Freight Carried—						
Revenue.....lb.	11,055,142	11,546,777	10,522,932	12,615,119	23,437,925	31,633,437
Non-revenue.....“	1,243,938	1,515,288	1,247,743	1,447,642	1,607,801	2,357,529
Totals.....“	12,651,939	13,853,563	12,430,645	14,462,400	25,226,986	34,241,378
Freight Ton Miles—						
Revenue.....No.	1,125,912	1,500,179	1,406,679	1,337,145	1,892,391	2,985,618
Non-revenue.....“	148,038	218,141	261,507	313,072	420,286	684,622
Totals.....“	1,273,950	1,718,320	1,668,186	1,650,217	2,312,677	3,670,240
Mail Carried.....lb.	5,470,209	7,586,809	7,296,265	6,418,944	5,930,338	6,965,895
Ton miles.....No.	1,484,314	2,103,867	2,072,129	2,096,289	1,534,919	1,646,136
Hours Flown by Aircraft—						
Transportation revenue.....No	92,314	101,169	105,815	125,570	164,648	218,713
Transportation non-revenue.....“	5,227	6,438	5,308	12,391	20,929	25,338
Patrols, surveys, etc.. “	20,335	9,055	11,299	14,609	26,011	39,411
Totals.....“	117,876	116,662	122,422	152,570	211,588	283,462
Hours flown by crew....No.	235,573	257,815	279,943	369,148	449,844	..
Hours flown by passengers.....“	480,534	562,337	712,373	1,048,344	1,302,358	..
Horse-power hours flown by aircraft.....'000	127,246	165,487	183,556	216,288	..	..
Gasoline consumption <sup>3</sup> .....gal.	4,653,555	5,661,301	6,169,355	7,855,067	11,556,480	13,922,451
Lubricating oil consumption <sup>4</sup> .....“	104,441	117,050	100,240	121,963	155,206	184,454
Licensed civil airports (all types).....No.	177	175	136	146	161	—
Licensed Civil Aircraft (all types)—						
Gross weight—						
Up to 2,000 lb.....No.	132	52	71	169	639	986
2,001- 4,000 lb.....“	64	48	44	47	73	440
4,001-10,000 lb.....“	89	73	87	111	176	312
Over 10,000 lb.....“	33	41	45	54	68	135
Totals, Aircraft .... “	138	214	247	381	956	1,837

<sup>1</sup>For footnotes, see end of table.

## 4.—Summary Statistics of Civil Aviation, 1942-47—concluded

Item	1942	1943	1944	1945	1946	1947
<b>Ownership, Commercial—</b>						
Up to 2,000 lb.....No.	75	33	7	117	434	635
2,001- 4,000 lb....."	46	35	18	34	57	310
4,001-10,000 lb....."	61	54	53	77	124	261
Over 10,000 lb....."	32	38	45	50	56	124
<b>Ownership, Other—</b>						
Up to 2,000 lb.....No.	57	19	64	52	205	351
2,001- 4,000 lb....."	18	13	26	13	16	130
4,001-10,000 lb....."	28	19	34	34	52	51
Over 10,000 lb....."	1	3	—	4	12	11
<b>Licensed Civil Air Personnel—</b>						
Commercial pilots...No.	108	67	68	96	88	76
Limited commercial pilots....."	324	218	181	457	1,149	1,087
Transport pilots....."	188	235	318	485	828	801
Private pilots....."	656	242	255	389	1,123	1,910
Air engineers....."	944	983	850	962	1,269	1,534

<sup>1</sup> Exclusive of passengers carried between foreign stations.<sup>2</sup> Includes employees other than crews.<sup>3</sup> Exclusive of freight carried between foreign stations which is included in totals.

Canadian carriers only.

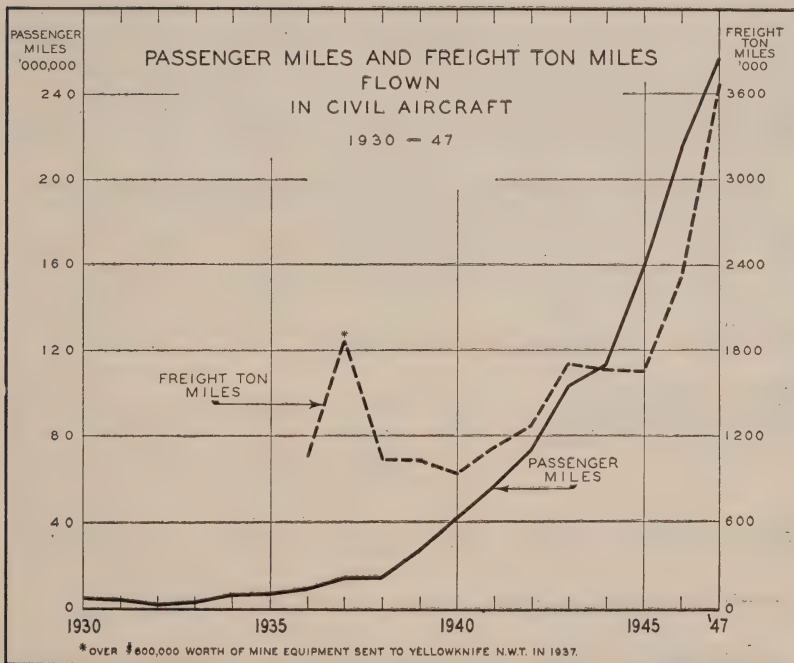
<sup>4</sup> For

Table 5 shows summary figures for 1947 by type of carrier. For a definition of scheduled and non-scheduled carriers, see p. 790. Statistics for international carriers include traffic over Canadian territory for both Canadian and foreign operators; a small traffic across Canadian territory and between foreign stations is also



included. Statistics for Canadian carriers operating international routes are included both as "International" and "Canadian" but duplications are excluded from the totals.

### 5.—Summary Statistics of Civil Aviation by Type of Carrier, 1947

Item	Canadian Carriers		Foreign Inter- national	Total
	Scheduled	Non- Scheduled and Other		
Aircraft Miles Flown—				
Revenue transportation.....No.	21,215,547	10,514,468	1,456,602	33,186,617
Non-revenue transportation....."	1,571,991	1,261,351	12,610	2,845,952
Totals....."	22,787,538	11,775,819	1,469,212	36,032,569
Passengers Carried— <sup>1</sup>				
Revenue.....No.	546,372	111,458	178,217	836,047
Between foreign stations....."	—	—	10,674	10,674
Non-revenue....."	38,887	4,290	3,273	46,450
Totals....."	585,259	115,748	192,164	893,171
Passenger Miles—				
Revenue.....No.	214,783,377	8,610,074	14,592,727	237,986,178
Non-revenue....."	19,191,698	509,668	257,841	19,959,207
Totals....."	233,975,075	9,119,742	14,850,568	257,945,385
Freight Carried— <sup>1</sup>				
Revenue.....lb.	15,643,726	14,435,093	1,554,618	31,633,437
Between foreign stations....."	—	—	250,412	250,412
Non-revenue....."	1,831,396	435,909	90,224	2,357,529
Totals....."	17,475,122	14,871,002	1,895,254	34,241,378
Freight Ton Miles—				
Revenue.....No.	2,112,135	771,151	102,332	2,985,618
Non-revenue....."	652,281	23,444	8,897	684,622
Totals....."	2,764,416	794,595	111,229	3,670,240
Mail carried.....lb.	5,770,822	137,953	1,057,120	6,965,895
Mail ton miles.....No.	1,574,424	6,128	65,584	1,646,136
Hours Flown by Aircraft—				
Transportation revenue.....No.	134,088	75,755	8,870	218,713
Transportation non-revenue....."	11,727	13,537	74	25,338
Patrols, surveys, etc....."	1,229	38,182	—	39,411
Totals....."	147,044	127,474	8,944	283,462
Gasoline consumption.....gal.	10,825,106	1,797,102	1,300,243 <sup>2</sup>	13,922,451
Lubricating oil consumption....."	140,451	34,636	9,367 <sup>2</sup>	184,454

<sup>1</sup> Excludes traffic interchanged between carriers.

<sup>2</sup> Purchased in-Canada.

**Finances.**—The investment of the Department of Transport in airways and airports and in the Canadian Government transatlantic air service is given in Table 6, and the operation and maintenance expenditures and revenues for 1946-48 in Table 7. In addition to the direct expenditures shown, the Department has given assistance to municipalities for the construction and development of airports amounting to \$3,732,310, up to Mar. 31, 1949.

### 6.—Capital Investment of the Department of Transport in Civil Aviation Facilities, Years Ended Mar. 31, 1946-48

NOTE.—Compiled from Department of Transport records.

Item	1946	1947	1948	Total as at Mar. 31, 1948
	\$	\$	\$	\$
<b>Airways and Airports—</b>				
Civil Aviation—				
Ordinary appropriations.....	—1,334,324	—	—	849,053
Capital appropriations.....	750,323	1,195,890	1,334,784	12,384,430
War appropriations.....	2,899,518	99,066,057	19,563,546	130,649,991
Air Ministry of United Kingdom.....	4,913,090	—	—	4,913,091 <sup>1</sup>
Radio Aviation—				
Ordinary appropriations.....	2,847	—	—	336,180
Capital appropriations.....	494,430	647,358	2,360,412	7,769,009
War appropriations.....	173,476	663,010	—35,125	1,255,811
Meteorological Aviation—				
Ordinary appropriations.....	—	1,420	—	12,486
War appropriations.....	150,469	57,098	—	469,299
<b>Totals, Airways and Airports.....</b>	<b>8,049,829</b>	<b>101,630,833</b>	<b>23,223,617</b>	<b>158,639,350<sup>2</sup></b>
<b>Canadian Government Transatlantic Air Service...</b>	<b>2,548,104</b>	<b>1,678,103</b>	<b>—</b>	<b>4,788,369</b>
<b>Totals, Departmental Investment.....</b>	<b>10,597,933</b>	<b>103,308,936</b>	<b>23,223,617</b>	<b>163,427,719</b>

<sup>1</sup> Property constructed at Montreal (Dorval), Que., to Feb. 15, 1946, and North Bay, Ont., to Dec. 31, 1945, acquired by Federal Government under agreements of June 24, 1943, and June 5, 1944, respectively.

<sup>2</sup> The above does not include expenditures for construction and development of airways and airports from unemployment relief appropriations to the extent of \$3,811,164 made by Department of National Defence prior to establishment of Department of Transport in 1936, nor grants to municipalities to assist in development of airways and airports to the extent of \$3,707,311, nor expenditures made by Department of National Defence (Air), or other Federal Government Departments. There was also a payment of \$87,100,814 covering acquisition of United States Air (War) and other war installations in Canada and Labrador.

### 7.—Operation and Maintenance Expenditures and Revenues of the Department of Transport in connection with Civil Aviation, Years Ended Mar. 31, 1946-48

NOTE.—Compiled from Department of Transport records.

Item	1946	1947	1948
	\$	\$	\$
<b>Expenditures—</b>			
Air services administration.....	5,545	8,725	13,699
Control of civil aviation (including administration of Aeronautics Act and Regulations).....	252,208	356,479	490,811
Grants to aeroplane clubs.....	33,950	30,000	—20,000
Grants to National Research Council.....	—	—	50,000
Assistance to Mason and Campbell Aviation Co. Ltd.....	9,729	271	—
<b>Airways and Airports Operation and Maintenance—</b>			
Main facilities.....	1,241,513	2,026,334	4,050,719
Radio aviation.....	918,211	1,070,332	1,102,325
Meteorological aviation.....	477,967	599,162	—
Deficit to Trans-Canada Air Lines.....	—	—	1,369,678
Northwest Communication System.....	—	—	293,464
Operating deficit—Demobilization and Reconversion.....	—	—	3,370,306
War appropriations expenditure.....	5,033,675	4,370,172	15,773
Government Employees Compensation Act.....	7,668	13,050	—
<b>Totals, Expenditures.....</b>	<b>7,980,466</b>	<b>8,474,525</b>	<b>10,736,775</b>
<b>Revenues and Receipts—</b>			
Private air pilot certificates.....	452	1,934	3,772
Aircraft registration fees.....	1,505	4,720	10,487
Airport licences.....	120	630	951
Airworthiness certificates.....	1,790	3,685	4,930
Scheduled air transport service licences.....	—	—	—

**7.—Operation and Maintenance Expenditures and Revenues of the Department of Transport in connection with Civil Aviation, Years Ended Mar. 31, 1946-48—concluded**

Item	1946	1947	1948
	\$	\$	\$
<b>Revenues and Receipts—concluded</b>			
Fines—Aeronautics Act and Regulations.....	—	140	940
Airport landing fees.....	115,593	157,217	343,129
Passenger tolls.....	354	2,776	—
Rental at airports.....	38,279	195,131	271,647
Outside and hangar space rental.....	19,106	148,103	193,084
Rental of equipment.....	8,657	24,220	28,575
Rental—employees quarters.....	52,750	59,038	62,396
Miscellaneous rental.....	1,690	3,633	1,856
Power service.....	4,266	9,207	15,548
<b>Concessions—</b>			
Gasoline and oil.....	—	—	95,940
Taxi.....	—	—	6,326
Telephone.....	—	—	1,575
Telephone service.....	—	—	22,047
Airport radio service to aircraft.....	26,374	27,524	58,880
Radio message tolls.....	21,195	22,746	31,508
Mess receipts.....	29,402	30,182	23,000
Miscellaneous revenue.....	7,165	42,776	30,662
Refund of previous years' expenditure.....	31,673	409,997	41,197
<b>Totals, Revenues and Receipts.....</b>	<b>360,371</b>	<b>1,143,659</b>	<b>1,348,450</b>

No statistics are available regarding expenditures on flying operations by the Federal and Provincial Governments or by private individuals, but capital expenditures made by commercial air carriers for property as reported for the end of 1947 are shown in Table 8.

**8.—Cost of Property, Revenues and Expenditures for Scheduled and Other Commercial Air Carriers, 1947**

Item	Commercial Canadian Carriers		
	Scheduled	Other	Total
	\$	\$	\$
<b>Property Account—</b>			
Aircraft.....	17,777,080	2,801,569	20,578,649
Aircraft engines.....	1,713,599	482,420	2,196,019
Buildings and improvements.....	3,433,226	529,364	3,962,590
Miscellaneous.....	2,763,453	701,549	3,465,002
<b>Totals, Cost of Property.....</b>	<b>25,687,358</b>	<b>4,514,902</b>	<b>30,202,260</b>
<b>Revenues and Expenditures—</b>			
Revenues.....	22,300,645	4,533,445	26,834,090
Expenditures.....	24,439,154	4,882,348	29,321,502

**Employees and Salaries and Wages.**—The numbers of civil air personnel licensed in recent years is shown in Table 4, p. 797. However, those figures include pilots and engineers in the employ of the Federal Government and of private individuals as well as those not employed at all in the ordinary sense.



## 9.—Employees and Salaries and Wages in Civil Aviation, 1947

Class of Employee	Scheduled		Non-Scheduled		Totals	
	No.	\$	No.	\$	No.	\$
General officers.....	198	1,052,909	64	170,367	262	1,223,276
Clerks.....	736	1,247,481	63	75,202	799	1,322,683
Pilots.....	196	1,274,608	167	402,060	363	1,676,668
Co-pilots.....	174	668,129	3	6,868	177	674,997
Despatchers.....	63	190,304	16	24,340	79	214,644
Communication operators.....	450	869,405	9	14,107	459	883,512
Stewards or other attendants.....	154	296,155	3	4,064	157	300,219
Air engineers.....	229	601,854	91	157,937	320	759,791
Mechanics.....	1,227	2,743,676	164	246,767	1,391	2,990,443
Airport employees.....	757	1,422,568	35	42,687	792	1,465,255
Stores employees.....	126	236,692	15	22,754	141	259,446
Other employees.....	484	1,151,330	301	412,472	785	1,563,802
<b>Totals.....</b>	<b>4,794<sup>1</sup></b>	<b>11,755,111<sup>1</sup></b>	<b>931</b>	<b>1,579,625</b>	<b>5,725<sup>1</sup></b>	<b>13,334,736<sup>1</sup></b>

<sup>1</sup> Exclusive of 124 employees paid \$339,095—Canadian domiciled employees of international carriers.

## PART VI.—WIRE COMMUNICATIONS\*

## Section 1.—Telegraphs

The early history of telegraphic communication in Canada is given at p. 778 of the 1934-35 Year Book.

**Federal Government Telegraph and Telephone Service.**†—The function of the Telegraph and Telephone Branch of the Department of Transport is to furnish wire communications for outlying and sparsely settled districts where commercial companies do not enter into the field and where the population must receive adequate communication services in the public interest. These services include: telegraph and telephone services to scattered settlements along the coast of Cape Breton Island; cable services to Campobello, Grand Manan and other islands in the Bay of Fundy, to Prince Edward Island and a number of small islands in the Gulf of St. Lawrence; cable connections with Pelee and Manitoulin Islands in Ontario as well as telephone lines on the latter; some lines to northern outlying districts in Saskatchewan; telegraph lines from Edmonton to the Athabaska and Peace River country in Alberta in addition to an extensive telephone system in the latter area; telegraph and telephone communications around the coast of Vancouver Island and adjacent islands; service to fishing, lumber and mining centres in the interior; and an over-land telegraph and telephone line serving communities from Ashcroft, B.C., to Dawson, Yukon.

**Telegraph Systems.**—The Canadian telegraph systems are composed of lines owned by the Federal Government and by chartered railway and telegraph companies. The Canadian facilities, in proportion to population, are among the most extensive in the world, and are operated under great climatic and geographical difficulties.

\* Revised in the Transportation Division, Dominion Bureau of Statistics. This Division issues annual reports dealing with telegraph and telephone statistics.

† Revised by G. C. W. Browne, Director of Radio, Radio Division, Department of Transport.

## 1.—Summary Statistics of Canadian Telegraphs, 1939-48

NOTE.—Figures for 1920-38 will be found in the corresponding table of previous Year Books beginning with the 1938 edition.

Year	Gross Revenue	Operating Expenses	Net Operating Revenue	Pole-Line Mileage	Wire Mileage	Em- ployees <sup>1</sup>	Offices	Messages, Land <sup>2</sup>	Cable-grams and Marconi-grams <sup>3</sup>	Money Trans-ferred
	\$	\$	\$	miles	miles	No.	No.	No.	No.	\$
1939...	10,474,489	9,297,902	1,176,587	52,464	374,550	6,339	4,845	12,462,912	1,492,389	3,539,988
1940...	10,922,674	9,625,035	1,297,639	52,396	380,318	6,588	4,781	12,732,082	1,657,148	3,118,166
1941...	12,777,920	10,878,222	1,899,698	52,246	379,794	7,272	4,832	14,281,570	2,251,979	3,868,040
1942...	14,826,431	11,925,417	2,901,014	52,418	381,953	7,544	4,979	15,422,131	2,831,549	5,439,880
1943...	16,955,288	12,942,108	4,013,180	52,414	384,350	8,330	4,908	16,469,564	3,013,752	7,677,080
1944...	16,986,491	14,404,835	2,581,656	52,414	387,677	8,050	4,834	16,445,450	2,324,863	8,242,926
1945...	18,016,289	15,062,231	2,954,058	52,447	391,476	8,230	4,804	17,666,904	2,192,173	8,006,128
1946...	17,997,726	16,028,900	1,968,826	52,523	400,981	8,603	4,707	18,441,841	1,845,539	9,247,100
1947...	18,514,525	17,359,796	1,154,729	51,024	401,803	8,711	4,640	18,987,774	1,613,621	10,988,591
1948...	19,422,788	20,292,402	Dr.869,614	50,958	405,640	9,093	4,679	19,013,468	1,579,679	11,512,194

<sup>1</sup> Excludes commission operators.

<sup>2</sup> Includes messages to and from vessels on the Great Lakes and the St. Lawrence River, and messages to and from stations.

<sup>3</sup> Excludes messages relayed and includes paid wireless messages to and from ships in the Gulf of St. Lawrence and Atlantic Ocean.

**Submarine Cables.**—Four cable companies operate in Canada: the Commercial Cable Company; the Pacific Cable Board; Halifax and Bermudas Cable Company; and the Western Union Telegraph Company. These companies operate to stations in Newfoundland, the United States, Bermuda, England, Australia, New Zealand, etc. The number of cables operating between connected stations and the length of cables will be found at p. 758 of the 1948-49 Year Book.

## Section 2.—Telephones

A brief historical account of the early development of telephones in Canada is given at p. 781 of the 1934-35 Year Book.

**Telephone Systems.**—The 3,056 telephone systems existing in 1947 included the three large provincial systems in Manitoba, Saskatchewan and Alberta, and smaller governmental systems in Ontario, Quebec and New Brunswick, together with the system operated by the Federal Department of Public Works and the National Parks of Canada, Department of Mines and Resources. They also included 23 municipal systems, the largest operated by the cities of Edmonton, Fort William and Port Arthur. Of the 2,318 co-operative telephone companies no fewer than 1,077 were in Saskatchewan. There were 783 in Alberta and 216 in Nova Scotia. The largest among the 501 stock companies operating telephone systems in 1947 were the Bell Telephone Company and the British Columbia Telephone Company. Over 62 p.c. of the total telephone investment in Canada belongs to the Bell Telephone Company, and their telephones in Quebec and Ontario constitute 58 p.c. of the total for Canada.

**Telephone Equipment.**—During the years 1938-47 there was an increase of 871,180 in the number of telephones in use, representing an advance of 46 p.c. in telephones per 100 population.

Of the 2,230,597 telephones in Canada in 1947, 1,255,645 or 56 p.c. were operated from automatic switchboards. The remainder were operated from manual switchboards. Automatic switchboards have completely displaced manual switchboards in the principal cities of the Prairie Provinces and are displacing them in the other provinces as equipment becomes available.

## 2.—Mileages of Pole Line and Wire, and Telephones in Use, 1938-47

NOTE.—Figures for 1911-37 will be found in the corresponding tables of previous Year Books beginning with the 1938 Year Book.

Year	Sys- tems	Pole-Line Mileage	Mileage of Wire	Telephones in Use					
				Business	Resi- dential	Rural <sup>1</sup>	Public Pay	Total	Per 100 Popu- lation
	No.	miles	miles	No.	No.	No.	No.	No.	No.
1938....	3,203	211,895	5,397,244	396,975	695,961	240,204	26,277	1,359,417	12.1
1939....	3,212	212,603	5,518,329	406,279	720,043	243,730	27,220	1,397,272	12.3
1940....	3,193	212,680	5,681,594	421,050	762,331	248,982	28,675	1,461,038	12.8
1941....	3,209	213,393	5,882,223	446,739	827,522	257,409	30,476	1,562,146	13.6
1942....	3,192	217,958	6,014,596	463,827	867,307	266,176	30,465	1,627,775	14.0
1943....	3,187	218,702	6,057,880	484,429	901,228	275,202	31,303	1,692,162	14.3
1944....	3,174	220,161	6,108,070	504,791	928,061	286,521	32,550	1,751,923	14.6
1945....	3,151	222,435	6,333,761	531,697	983,074	300,757	33,266	1,848,794	15.3
1946....	3,114	228,983	6,770,137	585,982	1,079,769	326,405	33,962	2,026,118	16.5
1947....	3,056	232,054	7,285,681	645,154	1,194,840	354,779	35,824	2,230,597	17.7

<sup>1</sup> Includes telephones on rural exchange lines and urban exchange lines that have more than four parties.

The density of telephones in the different provinces is naturally influenced by the urbanization of the population because the number of telephones used for business purposes is much greater in cities and towns than in rural areas.

## 3.—Telephones in Use, by Provinces, 1947

Province or Terri- tory	On Individual Lines		On 2- and 4-Party Lines		On Rural Lines		Private Branch Exchanges and Extensions		Public Pay Stations	Total	Tele- phones per 100 Popu- lation
	Busi- ness	Resi- dence	Busi- ness	Resi- dence	Busi- ness	Resi- dence	Busi- ness	Resi- dence			
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
P.E.I....	1,167	1,231	239	2,090	348	2,689	787	192	63	8,806	9.4
N.S.....	9,098	16,545	1,018	22,731	1,344	15,155	10,111	3,322	1,040	80,364	12.9
N.B.....	5,537	9,106	1,409	16,434	1,335	9,837	7,658	1,929	931	54,176	11.0
Que.....	60,894	94,307	14,765	172,719	11,809	42,246	102,088	17,478	14,074	530,380	14.3
Ont.....	95,916	149,685	17,720	375,926	7,930	142,167	156,998	47,702	13,509	1,007,553	24.1
Man.....	14,041	40,902	84	17,995	1,785	17,423	18,738	2,882	2,602	116,452	15.7
Sask.....	15,682	32,420	466	306	11	53,119	8,228	1,952	545	112,729	13.4
Alta.....	20,007	44,276	48	218	1,377	20,336	15,579	1,383	1,099	104,323	12.7
B.C.....	29,750	8,773	579	108,274	4,562	21,203	36,527	4,062	1,961	215,691	20.7
Yukon...	20	—	—	—	35	68	—	—	—	123	1.5
<b>Totals..</b>	<b>252,112</b>	<b>397,245</b>	<b>36,328</b>	<b>716,693</b>	<b>30,536</b>	<b>324,243</b>	<b>356,714</b>	<b>80,902</b>	<b>35,824</b>	<b>2,230,597</b>	<b>17.7</b>

**Telephone Finances and Calls Served.**—The steady increases in capitalization, revenues and expenditures, salaries and wages and number of employees of telephone companies over the past ten years are shown in Table 4.



## 4.—Financial Statistics of Telephones, 1938-47

NOTE.—Figures for 1911-37 will be found in the corresponding table of previous Year Books, beginning with the 1938 Year Book.

Year	Capitalization		Cost of Property and Equipment	Gross Revenue	Operating Expenses	Net Operating Revenue	Salaries and Wages <sup>1,2</sup>	Employees <sup>2</sup>
	Capital Stock	Funded Debt						
	\$	\$	\$	\$	\$	\$	\$	No.
1938.....	128,802,946	163,398,749	342,227,172	64,749,255	55,231,173	9,518,082	26,020,463	17,925
1939.....	130,507,411	162,168,894	350,160,208	67,438,256	57,383,562	10,054,694	26,525,374	17,636
1940.....	132,153,922	160,630,190	359,454,188	72,008,157	62,266,583	9,741,574	27,147,055	18,696
1941.....	133,807,363	163,938,306	372,639,967	79,369,496	68,691,602	10,677,894	29,003,719	20,103
1942.....	135,034,375	165,634,194	386,164,071	87,057,252	75,221,857	11,835,365	31,580,290	20,360
1943.....	136,566,967	163,430,008	393,230,035	94,406,757	81,894,162	12,512,595	33,581,699	20,694
1944.....	137,719,691	161,307,878	401,862,799	101,082,353	87,739,283	13,343,070	37,261,134	21,978
1945.....	138,680,893	153,934,250	418,434,346	109,899,862	96,417,884	13,481,978	41,830,117	25,599
1946.....	158,430,612	156,099,974	454,214,793	120,675,038	105,750,974	14,924,064	54,147,432	33,170
1947.....	183,469,710	171,810,793	521,183,575	134,666,857	116,623,149	18,043,708	66,623,983	35,578

<sup>1</sup> Includes salaries and wages chargeable to capital account.

<sup>2</sup> Excludes rural lines in Saskatchewan.

## 5.—Financial Statistics of Telephones, by Provinces, 1947

Province or Territory	Capital Liability	Cost of Property and Equipment	Gross Revenue	Expenses	Net Income	Salaries and Wages <sup>1</sup>	Employees
	\$	\$	\$	\$	\$	\$	No.
P.E.I.....	837,888	1,496,156	399,923	350,450	49,473	180,239	139
N.S.....	12,111,026	16,781,131	4,328,428	3,687,617	640,811	1,935,803	1,201
N.B.....	9,853,169	13,796,442	3,289,419	2,865,265	424,154	1,760,439	1,158
Que.....	214,198,717 <sup>2</sup>	125,426,190	89,468,125 <sup>2</sup>	79,532,376 <sup>2</sup>	9,935,749 <sup>2</sup>	19,549,689	9,593
Ont.....	8,441,761	228,701,738	4,805,124	4,289,402	515,722	29,303,173	15,546
Man.....	16,756,724	28,714,109	7,621,712	5,533,468	2,088,244	3,618,191	1,854
Sask.....	33,988,082	36,782,932	5,688,164	4,621,616	1,066,548	1,390,799 <sup>3</sup>	1,100 <sup>3</sup>
Alta.....	21,133,750	22,824,182	6,782,021	4,460,266	2,321,755	2,303,192	1,120
B.C.....	37,894,386	46,629,772	12,267,515	11,268,646	998,869	6,570,739	3,863
Yukon.....	65,000	30,923	16,426	14,043	2,383	11,719	4
<b>Totals.....</b>	<b>355,280,503</b>	<b>521,183,575</b>	<b>134,666,857</b>	<b>116,623,149</b>	<b>18,043,708</b>	<b>66,623,983</b>	<b>35,578</b>

<sup>1</sup> Includes wages charged to expenses and to capital.

<sup>2</sup> Statistics of Bell Telephone Company in Quebec and Ontario are included in Quebec.

<sup>3</sup> Excludes employees and wages for rural systems.

**Telephone Calls.**—Table 6 is based on estimates made by systems operating almost 90 p.c. of all telephones in Canada. Actual count of calls on days of normal business was made and, after adjustment for incompleting calls, holidays, Sundays, etc., the average was multiplied by 365. The long-distance calls, in practically all cases, were the actual long-distance calls put through or completed.

## 6.—Local and Long-Distance Calls and Averages per Telephone and per Capita, 1938-47

NOTE.—Figures for 1928-35 will be found at p. 718 of the 1939 Year Book and those for 1936-37 at p. 761 of the 1948-49 edition.

Year	Local Calls	Long-Distance Calls	Total Calls	Total Calls per Capita <sup>1</sup>	Averages per Telephone		
					Local	Long-Distance	Total
	No.	No.	No.	No.	No.	No.	No.
1938.....	2,592,803,000	30,289,000	2,623,092,000	235	1,907	22-3	1,929
1939.....	2,742,739,000	31,611,000	2,774,350,000	246	1,963	22-6	1,986
1940.....	2,864,215,000	34,888,000	2,899,103,000	255	1,960	23-9	1,984
1941.....	2,971,780,000	39,747,000	3,011,527,000	262	1,902	25-4	1,927
1942.....	2,954,644,000	44,230,000	2,998,874,000	257	1,815	27-2	1,842
1943.....	2,929,446,000	50,348,000	2,979,794,000	252	1,731	29-8	1,761
1944.....	2,955,975,000	56,678,000	3,012,653,000	252	1,687	32-4	1,720
1945.....	3,145,492,000	64,788,000	3,210,280,000	265	1,701	35-0	1,736
1946.....	3,484,248,000	74,757,000	3,559,005,000	289	1,720	36-9	1,757
1947.....	3,760,569,000	82,695,000	3,843,264,000	305	1,686	37-1	1,723

<sup>1</sup> Per capita figures are based on official estimates of population given at p. 155.

## PART VII.—RADIO-COMMUNICATIONS\*

The Canada Year Book, 1945, at pp. 644-646, gives an outline of the development of administrative control over radio-communication in Canada.

### Section 1.—Administration

The administration and regulation of radio-communication in Canada is carried out by the Radio Division of the Department of Transport. To a very large extent the regulation of radio is made necessary by the great distances over which most radio waves are propagated, and the impossibility of confining them within national boundaries. Mobile stations, such as ships and aircraft, may move about in all parts of the world, and may create interference to radio services of other countries. For these reasons the regulation of radio-communication has been the subject of extensive international agreements. The extreme congestion of long-distance communication frequencies, and the uses of radio in connection with the safety of human life, make necessary both domestic and international regulation to ensure the most efficient utilization of the available frequencies.

The principal international radio agreements, and Canadian radio legislation can be grouped as follows:—

- (1) The International Telecommunication Convention and Regulations annexed thereto. The International obligations arising from this treaty are incorporated into The Radio Act, of 1938, which also contains radio regulations of a purely domestic nature.
- (2) The International Convention for the Safety of Life at Sea, the obligations of which are enforced through the Canada Shipping Act, which also includes additional domestic requirements. These instruments also cover ship construction and other aspects of marine safety, which are administered by other Divisions of the Department of Transport.
- (3) The North American Regional Broadcasting Agreement, and The Canadian Broadcasting Act, 1936.

**International and Commonwealth Conferences.**—During the year ended Mar. 31, 1949, a large number of international telecommunication conferences took place. A number of these arose from the decision made at the Atlantic City Conferences in 1947 to undertake the international reorganization of the high frequency radio frequency assignments of the world, in an effort to reduce congestion and interference in these bands.

The Provisional Frequency Board, which is charged with the task of engineering that part of the new Frequency List relating to fixed and maritime mobile services, began its work at Geneva, Switzerland, in January, 1948, and continued beyond Mar. 31, 1949. The importance of the matters involved necessitated representation throughout the course of the work by an officer of the Radio Division of the Department of Transport acting as the Canadian member on the Board, assisted by representatives of the Armed Forces as technical advisers.

In April, 1948, the International Administrative Aeronautical Radio Conference began work at Geneva on those bands in the new Frequency List set aside for communications between aircraft and aeronautical ground stations. This Conference, which recessed in September, produced a draft plan to be considered at subsequent Regional Conferences, and to be completed at a re-convening of the main conference in the latter part of 1949.

\* Sections 1 and 2 of this Part have been revised by the Department of Transport.

In January, 1949, the Northeast Atlantic "Loran" Conference was held at Geneva, and lasted about one month. A number of European countries have experienced a considerable amount of interference to other radio services from the Loran stations, but nevertheless agreement was obtained for the continued operation on its present frequencies of this most important aid to air and marine navigation in the Atlantic.

Canada is one of the 18 countries which have members on the Administrative Council of the International Telecommunication Union. The Council, which meets annually to direct the administrative affairs of the Union, met at Geneva throughout September, 1948.

The fifth meeting of the International Radio Consultative Committee (C.C.I.R.) held at Stockholm during the latter part of July and early August, was attended by the Canadian member of the Provisional Frequency Board.

The International High Frequency Broadcasting Conference began at Mexico City in October, 1948, and continued until after the end of the fiscal year (Mar. 31, 1949). This Conference was charged with the task of preparing that portion of the new frequency list in the bands set aside for high frequency (short wave) broadcasting.

During the first three weeks of June, 1948, a meeting of the Commonwealth Communications Council was held at London, England, and further progress was made in the negotiations on the division of the common user costs of the Commonwealth telecommunications system and other related problems.

Under the Atlantic City revision of the International Telecommunication Convention no provision was made for members being signatory to some of but not all the sets of Regulations annexed to the Convention. As Canada, the United States, and certain other countries, had never been signatories to the Telegraph and Telephone Regulations, it was the intention of the Atlantic City Conference that these Regulations should be revised or rearranged, possibly with certain parts being applicable only in certain regions, so that all member states of the Union would be able to sign them. In this connection, a meeting of the International Consultative Committee (C.C.I.T.) was held at Brussels from May 10 to 21, and subsequently a meeting at Geneva in January and February, 1949. This latter was a Preparatory Committee, composed of eight countries, to study the problems that would arise at the International Telephone and Telegraph Conference to be held in May, 1949, in connection with the revision of the Regulations, so that they could be signed by all countries.

The Safety of Life at Sea Conference was held in April and June, 1949, at London, England. This Conference revised and brought up to date the International Convention for the Safety of Life at Sea (1929), which lays down minimum safety requirements for international shipping, in respect to the carriage of radio equipment, as well as other safety appliances and constructional characteristics of vessels. In the 20 years the preceding Convention was in force important advances had been made in radio equipment, and the new Convention provides for these, including the use of radiotelephone on smaller ships, life-boat radio equipment, and wider use of radio direction finders.

During the year 1948-49 two International Civil Aviation Organization meetings were held. The first of these was the North Pacific Regional Meeting, held at Seattle, U.S.A., during the month of July, and was of particular interest in view



of plans for a Canadian airline to fly across the Pacific. The regular meeting of the ICAO Communications Division held at Montreal, Que., Jan. 10 to Feb. 26, 1949, reviewed the existing Communications Standards and Recommended Practices and, in addition, considered certain aspects of the Draft Frequency List prepared by the Aeronautical Administrative Conference at Geneva during the previous summer, which is to be revised at Regional Conferences.

**Technical Control and Licensing of Broadcasting Stations.**—Under The Broadcasting Act of 1936, applications for licences to establish broadcasting stations, or for modification of existing stations, are referred to the Canadian Broadcasting Corporation for its recommendations to the Minister, before being dealt with by the Department of Transport. As the licensing authority the Canadian Broadcasting Corporation also controls the linking up of stations to form networks, and in addition, the character of programs being broadcast. With these exceptions, the control of broadcasting stations is carried out by the Radio Division of the Department of Transport in the same way as in the case of other types of radiocommunication stations. The standard broadcast band is crowded with stations which, particularly at night, are capable of interfering with each other over the entire North American region. To utilize the band most effectively, and to reduce interference as much as possible, Cuba, the Dominican Republic, Haiti, the Bahama Islands, Newfoundland, Mexico, the United States and Canada made extensive engineering studies of how to accommodate the largest number of stations with the least interference. The resulting plan is embodied in the North American Regional Broadcasting Agreement. Before an additional new standard broadcasting station can be licensed a professional consulting radio engineer recognized by the Department must make a study of the matter, to select the frequency, the amount of power, and commonly a directional antenna system, and, by calculation, establish that interference to existing stations is within the requirements of the North American Regional Broadcasting Agreement. This engineering brief is checked by the Radio Division and, if necessary, modifications are made. After a new station is completed measurements must be made, and a proof of performance submitted to establish that the actual installation is in accord with the approved plan.

Another important measure to reduce interference is to ensure that each station is maintained exactly on the frequency assigned to it: this reduces considerably the amount of heterodyning, which causes interference in the form of a whistling note. The five frequency measuring stations maintained by the Radio Division make frequent measurements of the frequency of broadcasting and other stations, and ensure that all stations maintain their frequency within the narrow limits required.

The classes of radio stations listed in Table 1 are numerous and complicated by virtue of the fact that many perform closely related functions. There were at the end of the fiscal year Mar. 31, 1949, 2,057,799 radio stations operating in Canada; of these, 356 were Department of Transport stations. The summary of licensed services given on pp. 809 to 811 groups together licensed radio stations performing important related services.

## 1.—Radio Stations in Operation by Class, as at Mar. 31, 1949

Department of Transport Stations		Other Stations	
	No.		No.
Coast.....	2	Ship (Class A).....	1,856
Combined Coast and L.F. Direction Finding	1	Ship (Class B—Receiving only).....	150
Combined Coast, Radiotelephone and L.F. Direction Finding.....	11	Limited Coast.....	8
Combined Coast and Radiobeacon.....	3	Aircraft.....	863
Combined Coast and Radiotelephone.....	23	Public Commercial.....	115
Combined Coast, Radiotelephone and Radiobeacon.....	1	Private Commercial.....	3,699
Radiobeacon.....	40	Municipal Police Private Commercial....	112
Combined Radiobeacon and L.F. Direction Finding.....	1	Private Commercial Broadcasting—	
Combined Radiobeacon and Radiotelephone	1	Operated by the Canadian Broadcasting Corporation <sup>2</sup> .....	.63
Radiotelephone.....	18	Operated by private owners.....	144
Ionosphere.....	5		207
H.F. Direction Finding.....	2	Technical or training schools.....	8
Monitoring.....	5	Experimental.....	141
Land.....	1	Commercial Receiving.....	417
Ship (Class A).....	105	Commercial Receiving (Special).....	100
Aircraft.....	20	Amateur Experimental.....	5,755
Radio Range <sup>1</sup> .....	43	Private Radio Receiving.....	2,045,017
Combined Radio Range, Radiotelegraph and Radiotelephone <sup>1</sup> .....	49	Free to the blind.....	7,816
Fan Marker.....	10	Free to Hospitals and Charitable Institutions.....	33
Weather Reporting <sup>2</sup> .....	6	Free to Schools.....	4,868
Frequency Modulated Relay.....	6	Free to Crystal Receivers.....	10
Loran (Long range aid to navigation).....	3	Free to Federal Government....	68
			2,057,799
		<b>Total.....</b>	<b>2,071,586</b>

<sup>1</sup> Station location ("Z") markers are installed at 90 Radio Range Stations. <sup>2</sup> Two stations, at Port Harrison, Que., and Coppermine, N.W.T., perform restricted coast station service during the season of navigation but since their primary function is that of a weather reporting station, they are shown under this heading only. <sup>3</sup> Includes 19 repeater stations.

**Control and Licensing of Marine and Aeronautical Radio.**—Under the Safety of Life at Sea Convention, and the Canada Shipping Act, most passenger ships and larger cargo ships must be fitted with radiotelegraph equipment, primarily for use in cases of distress. This requirement includes certain standards that equipment must meet to fulfil the purposes for which it is fitted, as well as standards of proficiency of operating personnel. Type approval is given for each make and model of equipment which comes up to the required standard and, in addition, the ship station as a whole is inspected before the licence is issued, and periodically thereafter. Foreign ships are subject to inspection before sailing from Canadian ports to ensure that they conform with the requirements of the Safety of Life at Sea Convention. Approximately 3,000 ships are inspected annually.

Analogous inspections of aircraft radio stations are carried out and about 298 aircraft radio stations were inspected in 1948.

Standards are provided specifying in detail the requirements to be met to ensure an airworthy installation. These requirements are contained in Radio Division Circular C.R. 1, copies of which can be obtained from any Departmental Radio Inspector.

A 'Type Certificate' of airworthiness is granted to manufacturers for each type (model) aircraft radio equipment that has been demonstrated to meet the requirements. These requirements are contained in Circular C.R. 2, "Requirements for Type Certificate of Airworthiness for Aircraft Radio Equipment". Only type-certificated equipment is accepted for use on scheduled airlines and, while other equipment may be acceptable in other aircraft upon inspection at the time of installation, the purchaser of type-certificated equipment is assured that it will

meet all requirements. Each piece of type-certificated equipment is accompanied by an inspection release certificate, certifying that the equipment is in good order, and conforms to the approved type.

**Technical Control of Licensing — General.** — In all branches of radio, basic control is exercised over the following principal matters: the right to establish a station, assignment of frequencies, operator standards, operating procedure, and general regulations concerning the manner in which radio stations are used.

The efficient utilization, as well as the allocation of high frequencies requires reasonably accurate information on the transmission properties of the ionosphere, that vary with the season, the sunspot cycle and other factors. This information is obtained from daily measurements of the ionosphere made at about 50 points throughout the world. These data are combined, analyzed, and forecasts produced for the coming months. While aspects of special interest to Canada are treated by the Canadian Radio Wave Propagation Committee, the general frequency forecasts made by the United States Central Radio Propagation Laboratories are available to Canada. They are based on world-wide data, including those obtained from the five ionosphere measurement stations operated by the Radio Division at Clyde River, Baffin Island; St. John's, Nfld.; Resolute Bay, Cornwallis Island; Baker Lake, N.W.T. and Fort Chimo, Que.

Operator standards and related regulations are principally covered by international agreement, and arise partly from the uses of radio in connection with the safety of life, and also in the interests of reducing interference and making the most effective use of the radio spectrum.

In addition, operators of radio equipment are examined for certificates of proficiency in radio in accordance with the General Radiocommunications Regulations (Revision of Cairo, 1938).

The most important services call for operators holding first, second or other prescribed class of certificate of proficiency. Qualified operators are particularly essential in the case of ships and aircraft stations in the interests of safety of life. Operators for services of lesser importance, or services not likely to become a source of interference, are required to satisfy the Department of Transport that they are fully qualified to operate and maintain the equipment upon which they are employed.

At Mar. 31, 1949, the total number of certificates issued was 17,439, not all of which were still valid. In the commercial classes, certificates must be brought up to date from time to time by exchange or by re-examination, and in a number of cases operators allowed their certificates to lapse.

**Summary of Principal Licensed Services.**—*Commercial Trans-Oceanic Radiotelegraph and Radiotelephone Service.*—The Canadian Marconi Company is licensed to operate a long distance beam radiotelegraph service from its Montreal (Drummondville) Que., station to Great Britain, Australia, Bermuda and Jamaica, and a radiotelephone service from Montreal to Great Britain.

*Canada-Newfoundland Radiotelephone Service.*—The Canadian Marconi Company is licensed to operate a public commercial station with the transmitter at Drummondville and receiver at Yamachiche, Que., for the purpose of communicating with a similar station located at St. John's, Nfld., thus providing a direct radiotelephone circuit between Newfoundland and the mainland.



*Commercial Point-to-Point Radiotelephone Services.*—The North-West Telephone Company operates a radiotelephone service between points in British Columbia, not hitherto served by telephone communications. Such stations, used in conjunction with the ordinary telephone exchange, provide a duplex radiotelephone service to 182 isolated points and certain ships at sea.

*The Quebec Telephone and Power Company.*—On the south shore of the St. Lawrence, this Company operates a radiotelephone station at Rimouski, Que., which links up with the Bell Telephone Company at that place and with a radiotelephone station at Baie Comeau, Que.; telephone service from that area is provided to any part of Canada.

*Canadian Pacific Air Lines Limited.*—This organization operates a public commercial radiotelephone service consisting of public commercial radiotelephone stations located at Sioux Lookout, Pickle Lake, Red Lake and Kenora, Ont., which are used in conjunction with the ordinary telephone exchanges to provide telephonic communication to privately owned stations located at isolated points throughout the northwestern part of Ontario.

*Provincial Government Services.*—Provincial authorities use radio in forestry work and operate stations as follows: Nova Scotia 5; New Brunswick 4; Quebec 61; Ontario 250 (including 35 aircraft stations); Manitoba 36 (including 7 aircraft stations); Saskatchewan 139 (including 18 aircraft stations); Alberta 268; British Columbia 349 (including 17 patrol vessels, 2 Game Commission vessels and 1 Game Commission fixed station). The British Columbia Department of Public Works operates 4 private commercial stations including 1 aircraft station. The Alberta Department of Public Works has 12 stations (including 2 aircraft stations) and the Alberta Department of Railways and Telephones operates 6 stations. The Nova Scotia Department of Highways and Public Works operates 2 stations. The Saskatchewan Department of Public Health operates 15 aircraft stations. The Quebec Department of Mines operates 2 stations and the Quebec Streams Commission operates 1 station.

*Police Radio Services.*—The Royal Canadian Mounted Police operate 38 radio stations at fixed points, 91 mobile stations, 32 portable stations, 7 aircraft stations and 295 commercial receiving stations throughout Canada. The British Columbia Provincial Police operate 33 fixed stations, 47 mobile stations, 7 portable stations, 8 commercial receiving stations and 7 ship stations; the Ontario Provincial Police 43 fixed stations and 302 mobile stations; the Quebec Provincial Police 11 fixed stations and 17 mobile stations. All of these are used to provide liaison between the various units of the Force concerned.

Municipal police radio stations have also been licensed for the purpose of providing communication between various Provincial Police Headquarters and police radio-equipped automobiles in 112 municipalities throughout Canada.

*Communication with Isolated Points.*—Radiotelegraphy and radiotelephony are used throughout Canada to provide the means for maintaining contact with isolated points beyond the reach of the regular telegraph and telephone facilities.

*Public Utilities, Power and Other Companies.*—Radio is used by these bodies to provide emergency telegraph and telephone communication between their power plants and distribution centres, and 561 licences for such stations were issued during 1948, including 120 receiving stations in patrol cars.

Licences were also issued to mining companies throughout Canada to cover the operation of 165 radio stations and 37 aircraft radio stations.

Other companies operating aircraft were licensed for 200 ground radio stations and 682 aircraft radio stations (including 30 receiving stations installed in aircraft).

## Section 2.—Federal Government Radio Operations

**Operating Statistics.**—The International Telecommunication Convention and Regulations contain the international agreements concerning the rendering and settlement of international telecommunication accounts. The records for Canada are kept by the Radio Division of the Department of Transport.

### 2.—Messages Handled (including retransmissions), and Revenue Collected by the Department of Transport, as at Mar. 31, 1949

Item	Messages	Words	Revenue
	No.	No.	\$
<b>Marine—</b>			
East Coast.....	270,183	7,906,005	77,634
Great Lakes.....	56,959	813,225	22,654
West Coast.....	273,378	7,017,902	58,814
Hudson Bay and Straits.....	131,466	7,873,617	4,754
<b>Airways—</b>			
Private, commercial and airline messages.....	2,710,246	84,613,322	28,952
Radio service to airline companies.....			82,263
<b>Totals, Marine and Airways.....</b>	<b>3,442,232</b>	<b>108,224,071</b>	<b>275,071</b>
<b>Premium Revenue.....</b>	<b>—</b>	<b>—</b>	<b>20,081</b>
<b>Other Radio Revenue—</b>			
Examination fees—Radiotelegraph Operators' Certificates of Proficiency.....			1,254
Fines and forfeitures under the Radio Act, 1938.....			39,496
<b>Licence Fees—</b>			
Aircraft stations.....			7,749
Amateur experimental stations.....			14,378
Private commercial stations.....			18,561
Public commercial stations.....			3,905
Ship stations.....			17,668
Miscellaneous.....			1,310
Mess Receipts—Radio Aviation.....			23,377
Publications.....			806
Power service.....			27,272
Refunds on previous year's expenditure.....			13,268
<b>Rentals—</b>			
Employees' quarters.....			95,488
Equipment, transmitter space, etc.....			6,520
Sundry sales and services.....			89
Transmission lines privileges.....			341
Miscellaneous.....			249
<b>Total, Other Radio Revenue.....</b>			<b>271,731</b>
<b>Total, Radio Revenue (Applied to the operations of the Department of Transport) ...</b>			<b>566,883</b>
Collected from the issuance of radio receiving and private broadcasting station licences plus commissions <sup>1</sup> .....			4,795,643

<sup>1</sup> Section 14 (1) of the Canadian Broadcasting Act, 1936, provides that, "The Minister of Finance shall deposit from time to time in the Bank of Canada or in a chartered bank to be designated by him to the credit of the Corporation (a) the gross amount of moneys received in each year from licence fees in respect of private receiving licences and private station broadcasting licences without deducting therefrom any costs of collection or administration".

Table 3 shows the number of receiving station licences issued in the year ended Mar. 31, 1949, in comparison with previous years.

**3.—Private Receiving Station Licences<sup>1</sup> Issued, by Provinces, Years Ended Mar. 31, 1944-49**

Province	1944	1945	1946	1947	1948	1949
	No.	No.	No.	No.	No.	No.
Prince Edward Island.....	10,583	10,228	10,346	10,626	12,173	11,825
Nova Scotia.....	79,887	82,694	80,759	87,043	91,940	99,477
New Brunswick.....	52,698	53,240	55,043	57,159	68,484	75,559
Quebec.....	455,053	456,825	479,852	491,823	534,797	567,257
Ontario.....	647,167	627,348	607,968	628,075	677,299	704,993
Manitoba.....	110,249	106,144	107,343	108,985	118,823	126,586
Saskatchewan.....	128,754	129,298	126,002	129,447	135,095	155,177
Alberta.....	128,950	130,209	121,295	125,289	131,849	134,666
British Columbia.....	157,060	162,655	165,281	168,950	173,097	181,821
Yukon and N.W.T.....	499	459	462	427	470	438
<b>Canada.....</b>	<b>1,770,900</b>	<b>1,759,100</b>	<b>1,751,351</b>	<b>1,807,824</b>	<b>1,944,027</b>	<b>2,057,799</b>

<sup>1</sup> Includes licences issued free, numbering 7,896 in 1944, 8,375 in 1945, 8,435 in 1946, 10,673 in 1947, 10,676 in 1948 and 12,782 in 1949. See Table 1 for classification for 1949.

**Investigation and Suppression of Inductive Interference.**—Under the Broadcasting Act the use of electrical equipment which will produce harmful interference to broadcast reception is not permitted. The Radio Division of the Department of Transport maintains 42 cars which are equipped for measuring and locating sources of interference to broadcast reception. In addition to locating the sources of interference, advice is given as to how it can best be suppressed or eliminated. These cars operate from the permanent Radio Inspection Offices located in 23 cities throughout Canada.

**4.—Investigations of Inductive Interference, Years Ended Mar. 31, 1946-49**

Item	1946	1947	1948	1949
	No.	No.	No.	No.
<b>Sources Investigated—</b>				
Electrical distribution systems and power lines.....	1,645	1,554	1,459	1,602
Domestic and commercial electrical apparatus.....	2,859	4,162	5,035	5,499
Defective receivers and radio apparatus.....	647	871	1,433	1,031
Industrial, scientific and medical apparatus.....	—	—	1,474	887
<b>Totals.....</b>	<b>5,151</b>	<b>6,587</b>	<b>9,401</b>	<b>9,019</b>
<b>Action Taken—</b>				
Sources definitely reported cured.....	4,107	5,233	6,428	7,289
Sources not yet reported cured.....	960	1,214	2,725	1,635
Sources having no economic cure.....	84	140	248	95

Industrial, scientific and medical apparatus is brought under strict control, according to Regulations for Controlling Radio Interference and the authority of Section 23 of the Canadian Broadcasting Act, 1936. These regulations require that radiation from such apparatus, which is liable to cause interference to radio-communications, must be suppressed, either by shielding or by replacing the apparatus with a non-interfering type. The Department of Transport conducts type-tests on diathermy and industrial heating apparatus submitted by manufacturers, and those types that fulfil the requirements of the Department, are listed as non-interfering. The radiation from all such sources on communication frequencies must not exceed the tolerances specified by the Canadian Standards Association.



### Marine Radio Stations\*

**Marine.**—Four distinct networks of stations provide a complete radio aids-to-navigation service for ships. These networks serve the following areas: Great Lakes; Gulf of St. Lawrence and Atlantic coast; Hudson Bay and Strait, and Sub-Arctic; and Pacific coast. The first three networks are interlocking. The Department of Transport maintains communication between Ottawa and the east and west coasts, and Hudson Bay and Strait by means of high-frequency stations.

During the fiscal year 1948-49, Federal Government radiotelegraph stations on the east coast, west coast, the Great Lakes, and Hudson Bay and Strait handled 731,986 messages or 23,610,759 words.

**Radio Coast Stations.**—The primary purpose of the coast-station organization is to provide radiocommunication facilities whereby any ship within 500 miles of the Canadian coast may establish communication with shore.

On the east coast and the Hudson Bay and Strait there are 16 stations. There are seven on the Great Lakes and seven more on the west coast. All these broadcast information to navigators twice daily at advertised hours. Urgent information, such as hurricane warnings, is broadcast immediately upon receipt.

The Vancouver Coast Station (VAI) maintains long range radiocommunication with ships of any nationality at sea. Halifax (CFH) and Vancouver (CKN) Coast Stations participate in the Commonwealth scheme for providing similar radiocommunication services with ships, and are operated jointly by the Department of Transport and the Royal Canadian Navy.

**Radio Direction Finding Service.**—There are 13 marine radio direction finding stations in operation—seven on the east coast, five on the Hudson Bay and Strait, and one on the Pacific coast. These direction finding stations have an enviable reputation for efficiency and accuracy. During 1948-49, 16,972 bearings were given without charge to ships and aircraft.

**Radiobeacon Service.**—Radiobeacons are established for the purpose of enabling any ship or aircraft equipped with a direction finder to determine its bearing or direction in relation to the radiobeacon station. There are 46 radiobeacons in operation—23 on the east coast, 16 on the Great Lakes and 7 on the Pacific coast.

In clear weather each station, at advertised hours, transmits its characteristic for three periods of one minute separated by silent intervals of two minutes. In foggy weather all stations operate continuously, maintaining a uniform time cycle of three minutes, each station transmitting in its proper sequence for one minute separated by silent intervals of two minutes.

At Flat Point, N.S., Partridge Island, N.B., Red Islet, Que., Caribou Island, Gros Cap Lightship, Hope Island, Main Duck, Southeast Shoal, Cove Island, Michipicoten Harbour, Long Point, Ont., and Point Atkinson, B.C., the radiobeacon signals are synchronized with the emissions of the fog alarms at those points for distance finding during foggy weather.

Ships equipped with direction finding apparatus may, upon request, obtain signals for the purpose of taking bearings from any of the coast stations. During 1948-49, 282 such requests for signals were handled.

\* Detailed information covering all marine radio aids to navigation is contained in the annual publication "Radio Aids to Marine Navigation". Copies of this publication may be obtained, upon request, from the Department of Transport without charge, also any supplementary "Notices to Mariners" issued in connection therewith during the year.

"Loran" (long range aid to navigation) is a system of position finding based on the difference in the time of arrival of pulse type radio signals transmitted from a pair of stations. This time difference is measured on a Loran receiver and is used in conjunction with specially prepared charts or tables to establish a line of position. The intersection of two or more lines of position determined from two or more pairs of stations provides the required position.

There are three standard Loran stations in Canada, at Deming and Baccaro, N.S., and Spring Island, B.C., which operate in conjunction with Port aux Basques, Nfld., Siasconset, U.S.A. and Point Grenville, U.S.A., respectively.

**East Coast Visual Signal Service.**—The chief function of the visual signal stations on the east coast, located at strategic points, is to report the movements of vessels not equipped with radio. All radio coast stations report ships with which communication has been established, and this information is supplemented by reports of ships sighted by the visual signal stations which are organized to link up with the east coast radio service.

There are five visual signal stations on the east coast located at Point Tupper, Halifax, Camperdown, Saint John, and Partridge Island. In addition, the Lucher Lightship reports by radio to the nearest coast station all ships spoken and sighted.

**Time Signals.**—The Dominion Observatory of the Department of Mines and Resources at Ottawa operates a continuous time signal transmission over its radio station CHU on the frequencies of 3330, 7335 and 14,670 kc/s. The signals are transmitted continuously day and night and are of value to survey parties and prospectors in providing facilities for determining their exact geographical positions.

During 1949 three transmitters were purchased by the Dominion Observatory and installed at the Ottawa short-wave transmitting station where they are maintained and operated by Radio Division personnel of the Department of Transport.

Time signals are relayed from the Dominion Observatory to Halifax, N.S., and Port Churchill, Man. The signals are transmitted by Halifax (Albro Lake) Coast Station (CFH) daily at 0300 G.M.T. simultaneously on 115 and 5502.5 kc/s and at 1500 G.M.T. simultaneously on 115 and 9040 kc/s; and by Port Churchill Coast Station (VAP) daily at 1500 G.M.T. on 500 kc/s.

Time signals are also relayed from the Saint John, N.B. Observatory to Camperdown Coast Station (VCS) and are transmitted by that station daily, except Sunday, at 1400 G.M.T. on 417 kc/s.

**Radar.**—A considerable number of merchant ships are now fitted with radar which, besides being a safety measure, reduces the operating costs of the ships by allowing them to proceed under conditions of low visibility. Experimental reflectors fitted on buoys along the east coast enable ships to detect the buoys on their radar at a much greater range.

The Department of Transport is co-operating with the National Research Council in the development of a shore-based radar aid to shipping for use at harbour entrances. The experimental installation at Camperdown D.F. Station, at the entrance to Halifax harbour is producing very encouraging results, and an additional installation has been provided for the Lion's Gate Bridge, Vancouver. This latter installation also shows promise of being a useful navigational aid for the entrance to Vancouver harbour.

**Medical Advice to Ships at Sea.**—Ships at sea may obtain medical advice through any of the Department's coast stations. Messages from ships in this connection are forwarded to the nearest medical officer of the Department of National Health and Welfare and his reply is transmitted to the ship.

**Radio Assistance rendered to Vessels in Emergency.**—Federal Government radio stations rendered assistance to 109 ships and aircraft reported in danger or distress during the year ended Mar. 31, 1949.

**Marine Casualty Reporting Stations.**—To assist in promoting the safety of life at sea, seven marine casualty reporting stations on the Atlantic coast and ten on the Pacific coast, are fitted with radiotelephony.

### **Radiocommunication Stations and Aids to Air Navigation**

Radio aids to air navigation are provided from coast to coast along the airways used by the many Canadian airlines, United States airlines flying over Canadian territory, and many Canadian and United States military aircraft. In order to construct and maintain these many facilities, trained engineers and technicians are located at six district offices: Moncton, Montreal, Toronto, Winnipeg, Edmonton and Vancouver.

**Radio Ranges.**—The principal aid to air navigation is the radio range. These stations are located approximately 100 miles apart and provide radio beams which guide aircraft in flight. In addition to being kept on course, pilots can be informed by radio telephone from the ground station of weather conditions and other matters of interest to the pilot. There are now 92 such stations in operation from Vancouver Island to Newfoundland.

During the year ended Mar. 31, 1949, two new radio ranges were built and commissioned at Sandspit, B.C. and Graham, Ont., and the operation of one at Mecatina, Que., was taken over by the Department of Transport. The ranges at Patricia Bay, Sandspit and Pennfield Ridge were converted to simultaneous operation, making a total of 52 so equipped. This feature enables voice communication between the ground station and the pilot without shutting off the beams. The Cranbrook Radio Range was closed down at midnight on Mar. 31 as it was considered that the Kimberley Range nearby would serve the airway adequately.

**Fan Markers.**—Fan-marker equipment is installed at various points along the airway to identify to pilots a particular spot on the ground. For instance, the Maple Ridge fan marker, 30 miles east of the Vancouver airport, informs the pilot on a west-bound flight when he may safely lose altitude without risk of striking mountain tops. The only additional facility of this type undertaken was preparatory construction work for an installation at Campbell Cross, Ont.

**Station Location Markers.**—Each radio range station is provided with a station location marker. The purpose of this equipment is to inform a pilot flying overhead when he is directly above the station. This is accomplished by directing energy vertically from the ground in the form of an inverted cone that is received in the aircraft and causes a light on the instrument panel to be turned on. The following range stations had this equipment added during the year: Nakina, Ont., Earleton Junction, Ont., Muskoka, Ont., Porquis Junction, Ont., Pagwa, Ont., Rivers, Man., Swift Current, Sask., Broadview, Sask., Penhold, Alta., Medicine Hat, Alta., Sandspit, B.C., Kimberley, B.C., and Yellowknife, N.W.T.: this brings the total up to 90. Only two ranges have yet to be equipped, those at Killaloe, Ont., and at Mecatina, Que.



**Instrument Landing Systems.**—Instrument landing equipment provides radio beams, by means of which pilots are able to land aircraft during periods of very low visibility. The equipment consists of a localizer that provides a beam along the centre of the runway, a glide path transmitter which provides an inclined beam which meets the runway at the approach end, and three markers at four miles, 3,500 ft. and 200 ft. from the approach end of the runway that indicate to the pilot by means of lights on his instrument panel the exact distance he is from the runway.

**VHF Program.**—Due to the overcrowded condition of the high-frequency band and the fact that communication in the very-high-frequency spectrum is relatively free from static interference, progress is rapidly being made in providing communication between the ground and aircraft on the latter frequencies. The greatest drawback to the very-high-frequency spectrum is that communication is restricted to line of sight, thus making necessary more closely spaced installations than are required in the high-frequency band.

**Meteorological Communications Stations.**—Weather reporting stations are distributed at strategic points throughout the uninhabited areas of the country as well as throughout the populated areas. Reports from these stations enable the weather forecasters to make more accurate forecasts of great importance to both domestic and transatlantic flying operations. The only change in this regard during 1948-49 was the closing of the Sandgirt Lake station located in the far northern Quebec area. Reports required from this area are now being supplied by the staff of a mining company located at Knob Lake.

The four meteorological radio stations located at Fort MacKenzie, Que., Nitchequon, Que., Dore Lake, Que. and Dease Lake, B.C. were maintained and operated throughout the year. The purpose of these stations is to forward to the meteorological office the weather observations taken at the above points. The Meteorological Stations at Port Harrison, Que., and Coppermine, N.W.T., perform similar functions and, in addition, provide restricted coast station service during the season of navigation.

**Ionosphere Measurement Stations.**—The purpose of ionosphere measurements is to determine virtual height of the ionized layer in the earth's upper atmosphere and to determine the amount of absorption which radio waves experience in passing through and in being reflected by this layer. The information gained is of great importance in predicting short-wave communication coverage and for determining the reliability and deviation of bearings from short-wave direction finders. There are 65 ionosphere measurement stations located in different parts of the world. Three new ionosphere measurement stations at Resolute Bay, Baker Lake, N.W.T. and Fort Chimo, Que., were established and placed in operation during 1948-49. In addition, stations are maintained at Clyde River, Baffin Island; and at St. John's, Nfld.

### Other Federal Government Radio Stations

**Department of National Defence.**—In addition to stations established for military purposes, Militia Services (Royal Canadian Corps of Signals) operates 11 permanent stations and two summer stations situated along the Mackenzie River and in Yukon on behalf of the Department of Mines and Resources; Bureau of Northwest Territories and Yukon Affairs.

**Department of Public Works.**—A total of 32 stations, 12 to provide emergency communication between the mainland and certain islands, 18 to provide emergency links in existing landline circuits, and two for departmental communication are operated by the Department of Public Works.

**Department of Mines and Resources.**—The Department of Mines and Resources operates, under the Surveys and Engineering Branch, one fixed station, nine portable stations, one experimental station and one commercial receiving station; National Parks Bureau, nine fixed stations, 16 portable stations and two experimental stations; Mines and Geology Branch, one fixed station and one commercial receiving station; Bureau of Northwest Territories and Yukon Affairs, two fixed stations and 28 portable stations. These stations are used to provide communication and time signal service for survey parties and the protection and administration of National Parks.

**Department of National Revenue.**—The Department of National Revenue operates two private commercial stations.

### Section 3.—The Canadian Broadcasting Corporation\*

The history and development of the Canadian Broadcasting Corporation is given at pp. 737-740 of the 1947 Year Book.

The Canadian Broadcasting Corporation operates under authority of the Canadian Broadcasting Act, 1936, and is headed by a Board of nine Governors, chosen to give representation to the principal geographic divisions of Canada, and a full-time Chairman. The Board determines and supervises policy, but day-to-day operations and executive direction are the responsibility of the General Manager. The organization of the CBC consists of the following Divisions: Executive, Personnel and Administration, Finance, Engineering, Program, Press and Information, Commercial, Broadcast Regulations, and Station Relations.

Under the Canadian Broadcasting Act, 1936, the CBC is responsible for regulations controlling the establishment and operation of networks, the character of any and all programs broadcast over its own and privately owned stations and the proportion of time that may be devoted to advertising in broadcast programs. The CBC neither exercises, nor authorizes any private station to exercise on its behalf, censorship of any broadcast program. The responsibility of seeing that the regulations are observed rests with the individual station management.

**Frequency Modulation.**—The development of frequency modulation is given at p. 773 of the 1948-49 Year Book. On Apr. 1, 1949, there were five CBC and 20 privately owned frequency modulation stations in operation, with as many more in the process of construction.

**Television.**—In April, 1949, the Government of Canada adopted an interim plan for the development of television in Canada that, in accordance with the Canadian Broadcasting Act, 1936, entrusted the general direction of television

\* Revised by Donald Manson, Assistant General Manager, Canadian Broadcasting Corporation, Ottawa.

broadcasting in Canada to the CBC Board of Governors who are to arrange for television operations by the Canadian Broadcasting Corporation and by licensed private stations.

As a beginning the plan calls for the establishment by the Corporation of national television production centres at Montreal and Toronto and transmitting stations at these points and the provision of a service of television programs for broadcasting stations, that may be established in other areas of Canada, either by means of kinescope recordings or by direct physical relays when available.

The Government made it clear that the development of a Canadian television system on this interim basis should be undertaken during the period that the recently appointed Royal Commission on National Development in the Arts, Letters and Sciences conducted an inquiry into television.

The CBC has studied television intensively for the past two years and is now engaged in the necessary planning and organization. Projected plans (as in November, 1949) call for the establishment of program centres at Montreal and Toronto.

**Broadcasting Facilities.**—Under Sect. 24 of the Canadian Broadcasting Act, the CBC is required to review all applications for licences for new stations as well as applications for increases in power and changes in frequency or location. Two considerations are involved: (1) non-interference with the present and proposed facilities of the CBC, and (2) that high-power transmission facilities, on both long- and short-wave bands, are reserved for use by the CBC. Within these limitations, it is the policy of the Board to serve community interests by giving every practical encouragement and assistance to local stations.

The CBC operates three networks: the Trans-Canada and Dominion networks, serving English-language audiences from Atlantic to Pacific, and the French network, serving French-language listeners in Quebec. The Trans-Canada network is made up of 23 basic stations: 10 CBC-owned and 13 privately owned. There are 17 affiliated stations, four of which are CBC-owned Newfoundland stations. The Dominion network consists of 31 basic stations of which 30 are privately owned. Six affiliated privately owned stations receive Dominion network service. The French network has three basic CBC-owned stations, and ten privately owned stations.

On Apr. 1, 1949, when Newfoundland became the tenth Canadian province, the Trans-Canada network service was extended via a frequency modulation link and 541 miles of wireline. CBC-owned and operated stations were increased by four, and a new region was inaugurated utilizing Trans-Canada program service in conjunction with its own local community service programming. In July, 1949, the CBC had 18 stations of which seven had 50,000-watt transmitters. In order to present programs at suitable times and to give expression to varying interests in the six regions, CBC maintains regional offices and production facilities at St. John's, Nfld.; Halifax, N.S.; Chicoutimi, Quebec City and Montreal, Que.; Ottawa and Toronto, Ont.; Winnipeg, Man.; Edmonton, Alta.; and Vancouver, B.C.



## 5.—Broadcasting Stations of CBC Networks, as at July 15, 1949

NOTE.—The stations marked with an asterisk (\*) are CBC-owned.

Station Location			Station Location		
Frequency			Frequency		
Power			Power		
ke.			ke.		
watt			watt		
<b>Trans-Canada Basic Network—</b>			<b>Dominion Basic Network—conc.</b>		
CBI* Sydney.....	1,570	1,000	CFBC Saint John.....	930	5,000
CBH* Halifax.....	1,330	100	CKNB Campbellton.....	950	1,000
CBA* Sackville.....	1,070	50,000	CKTS Sherbrooke.....	1,240	250
CHSJ Saint John.....	1,150	5,000	CFCF Montreal.....	600	5,000
CFNB Fredericton.....	550	5,000	CKOY Ottawa.....	1,310	<sup>1</sup>
CBM* Montreal.....	940	5,000	CHOV Pembroke.....	1,350	1,000
CBO* Ottawa.....	910	1,000	CFJM Brockville.....	1,450	250
CKWS Kingston.....	960	5,000	CHEX Peterborough.....	1,430	1,000
CBL* Toronto.....	740	50,000	CJBC* Toronto.....	860	50,000
CFCH North Bay.....	600	1,000	CFPL London.....	980	5,000
CJKL Kirkland Lake.....	560	5,000	CFCO Chatham.....	630	1,000
CKGB Timmins.....	680	5,000	CFPA Port Arthur.....	1,230	250
CKSO Sudbury.....	790	5,000	CJRL Kenora.....	1,220	1,000
CJIC Sault Ste. Marie.....	1,490	250	CKRC Winnipeg.....	630	5,000
CKPR Fort William.....	580	1,000	CKX Brandon.....	1,150	1,000
CBW* Winnipeg.....	990	50,000	CJGX Yorkton.....	940	1,000
CBK* Watrous.....	540	50,000	CKBI Prince Albert.....	900	5,000
CBX* Edmonton.....	1,010	50,000	CFQC Saskatoon.....	600	5,000
CJOC Lethbridge.....	1,220	5,000	CHAB Moose Jaw.....	800	5,000
CFIC Kamloops.....	910	1,000	CKRM Regina.....	980	5,000
CKOV Kelowna.....	630	1,000	CFRN Edmonton.....	1,260	5,000
CJAT Trail.....	610	1,000	CFCN Calgary.....	1,060	10,000
CBR* Vancouver.....	1,130	5,000	CHWK Chilliwack.....	1,340	250
			CJOR Vancouver.....	600	5,000
			CJVI Victoria.....	900	<sup>3</sup>
<b>Trans-Canada Affiliated—</b>			<b>Dominion Affiliated—</b>		
CBN* St. John's.....	640	10,000	CHML Hamilton.....	900	5,000
CBY* Corner Brook.....	790	1,000	CKTB St. Catharines.....	1,550	1,000
CBT* Gander.....	1,450	300	CFOR Orillia.....	1,450	250
CKBW Bridgewater.....	1,350	1,000	CHNO Sudbury.....	1,440	1,000
CJCH Halifax.....	920	5,000	CHAT Medicine Hat.....	1,270	1,000
CJNT Quebec.....	1,340	250	CJIB Vernon.....	940	1,000
CKOK Hamilton.....	1,150	5,000	<b>French Basic Network—</b>		
CHLO St. Thomas.....	680	1,000	CBJ* Chicoutimi.....	1,580	10,000
CHOK Sarnia.....	1,070	<sup>1</sup>	CBV* Quebec.....	980	1,000
CKLW Windsor.....	800	5,000	CBF* Montreal.....	690	50,000
CFAR Flin Flon.....	590	250	<b>French Affiliated—</b>		
CFGP Grande Prairie.....	1,050	1,000	CHNC New Carlisle.....	610	5,000
CKLN Nelson.....	1,240	250	CJEM Edmundston.....	1,230	250
CKPG Prince George.....	550	250	CJBR Rimouski.....	900	5,000
CFPR Prince Rupert.....	1,240	250	CHLT Sherbrooke.....	900	1,000
CJDC Dawson Creek.....	1,350	1,000	CHGB Ste. Anne de la		
<b>Dominion Basic Network—</b>			Pocatière.....	1,350	<sup>3</sup>
CJCB Sydney.....	1,270	<sup>2</sup>	CKCH Hull.....	970	1,000
CHNS Halifax.....	960	5,000	CJFP Rivière-du-Loup.....	1,400	250
CJFX Antigonish.....	580	5,000	CKVD Val d'Or.....	1,230	100
CJLS Yarmouth.....	1,340	250	CHAD Amos.....	1,340	250
CFCY Charlottetown.....	630	<sup>2</sup>	CKRN Rouyn.....	1,400	250
CKCW Moncton.....	1,220	5,000			

<sup>1</sup> 5,000 watts during daytime; 1,000 watts directional antenna at night. <sup>3</sup> 5,000 watts during daytime; 1,000 watts at night.

<sup>2</sup> 1,000 watts during daytime; 250 watts at night.

**CBC International Service (Short Wave).—**The CBC International Service opened officially on Feb. 25, 1945. During the four years of operation a continuous growth has taken place bringing up to twelve the number of languages employed in serving seventeen different areas. In 1949 the 'Voice of Canada' was heard in English in the United Kingdom, British West Indies, Latin America, New Zealand, and Australia; in French, in France and Latin America; in Dutch, in the Netherlands and Latin America. Programs in Spanish and Portuguese form the main part of the transmissions to Latin America. In December, 1948, an Italian service was added to the already existing services to Germany, Austria, Czechoslovakia (Czech and Slovak transmissions), Denmark, Norway, and Sweden. Further increase in the number of European services are planned.

The CBC International Service transmitters are located near Sackville, N.B. Linked by land lines with studio and program headquarters located in the new Radio Canada Building at Montreal, the two 50,000-watt transmitters used by the International Service can operate in any of the international short-wave bands. Frequencies used depend on the solar activity, the geographical area served, the season of the year and the time of day.

Completed in 1948 new 21-megacycle antennae are now used regularly for transmissions to South Africa and for special broadcasts to Latin America. Although the CBC International Service in 1949 had no South African service of its own the CBC facilities for reaching this area as well as Europe (including the USSR), New Zealand, and Australia were placed at the disposal of the United Nations Organization Radio Division for a certain period of time, daily except Saturday and Sunday, to relay official reports and commentaries.

During the time the CBC International Service has been in operation its various sections have received altogether about 100,000 letters from listeners in all parts of the world. It is repeatedly stated in these letters that the Canadian programs are heard with unusual strength, and both the number and the contents of the letters testify to a keen interest in Canada aroused and satisfied by CBC International Service programs. Many listeners ask for specific information on a variety of topics ranging from trade conditions to social and educational matters. These inquiries are attended to by the language services or are referred to the Government Departments concerned. Reception reports are also verified.

Listeners in Europe and Latin America receive upon request an illustrated monthly booklet giving broadcast schedules, program details in the various languages, and the frequencies on which the transmissions may be heard. These monthly booklets also feature different aspects of Canadian life, further enlarging the comprehensive picture of Canada conveyed to listeners in 12 languages by means of news, commentaries, actuality broadcasts, interviews, documentary programs, talks, stories, music and drama.

**Domestic Program Service.**—During the year ended Mar. 31, 1948, 60,714 programs representing 18,234 hours of broadcasting were presented over the CBC Trans-Canada, Dominion and French networks. Of the total broadcasting hours, more than 82 p.c. were devoted to non-commercial and public service programs, and the remainder to commercial presentations. Of the total broadcasting hours in 1947-48, 65 p.c. was scheduled on the Trans-Canada network; the Dominion network released more than 7 p.c. and the remainder was released on the French network.

The CBC originated and produced 80 p.c. of its network broadcasts. Of the remainder 3 p.c. came from private stations and 17 p.c. were exchange programs from the United States and the British Broadcasting Corporation. Various categories of light music made up the greatest number of broadcast hours, followed in order by news, drama, semi-classical music, variety, agriculture programs, talks, educational broadcasts, religious periods, and programs devoted to the interests of women, sports enthusiasts, and children. Table 6 shows the proportion of time devoted to sustaining programs as compared with commercial programs, and analyses those made up of music as compared with the spoken word.

## 6.—Classification of CBC Programs, Year Ended Mar. 31, 1948

NOTE.—Dashes in this table indicate that no programs were reported under these particular sub-items.

Class of Program	Sustaining			Commercial		
	Programs	Time	P.C. of Total Hours	Programs	Time	P.C. of Total Hours
<b>Musical</b>	No.	hrs. mins.		No.	hrs. mins.	
Opera.....	185	194:30	1.3	46	76:30	2.4
Symphony.....	288	262:50	1.7	68	62:15	1.9
Sacred.....	262	108:55	0.7	—	—	—
Classical.....	826	420:45	2.8	1	0:30	2.5
Semi-classical.....	4,481	1,712:20	11.4	151	82:10	26.7
Variety.....	569	262:00	1.7	1,764	862:15	8.4
Light.....	12,874	3,866:20	25.9	765	272:05	0.3
Dance.....	3,445	1,260:30	8.4	34	8:30	1.5
Old-time.....	626	213:15	1.4	98	49:00	—
Band.....	435	188:00	1.3	—	—	—
<b>Totals, Musical.....</b>	<b>23,991</b>	<b>8,489:25</b>	<b>56.6</b>	<b>2,927</b>	<b>1,413:15</b>	<b>43.7</b>
<b>Oral</b>						
Drama.....	1,556	677:15	4.5	4,708	1,325:30	41.0
Prose and poetry.....	74	24:35	0.2	—	—	—
Talks—informative.....	3,482	922:30	6.2	757	233:45	7.2
Educational.....	1,084	418:25	2.8	23	5:45	0.2
News commentary.....	663	99:10	0.7	—	—	—
News events.....	427	140:20	0.9	1	0:30	—
News resums.....	13,448	2,130:05	14.2	—	—	—
Agriculture.....	2,306	887:00	5.9	—	—	—
Stock quotations.....	5	1:05	—	—	—	—
Sport events.....	117	47:35	0.3	139	179:45	5.6
Sport resums.....	313	77:30	0.5	54	13:30	0.4
Women's.....	1,988	361:30	2.4	244	61:00	1.9
Children's.....	1,196	358:20	2.4	—	—	—
Religious.....	1,211	366:35	2.4	—	—	—
<b>Totals, Oral.....</b>	<b>27,870</b>	<b>6,511:55</b>	<b>43.4</b>	<b>5,926</b>	<b>1,819:45</b>	<b>56.3</b>
<b>Grand Totals.....</b>	<b>51,861</b>	<b>15,001:20</b>	<b>100.0</b>	<b>8,853</b>	<b>3,233:00</b>	<b>100.0</b>
Live talent.....	33,406	8,796:40	58.6	7,431	2,778:15	86.0
Recording.....	15,697	5,192:45	34.6	1,422	454:45	14.0
Delayed.....	2,758	1,011:55	6.8	—	—	—

**Finances of the CBC.**—The 12th Annual Balance Sheet discloses that the finances and operations of the Canadian Broadcasting Corporation have continued to be subject to prudent control, resulting in an operating surplus of \$216,060 for the fiscal year 1948-49 after allowing \$172,309 for depreciation and obsolescence.

Fixed assets have increased by \$1,047,325 mainly on account of new 50 kw. transmitters at Lacombe, Alta.; Carman, Man.; and Hornby, Ont., a 10 kw. transmitter at Chicoutimi, Que.; and new frequency modulation stations at Montreal, Ottawa, Toronto and Vancouver. Financing of the capital expenditures has been made possible mainly by the granting of a loan of \$2,000,000 by the Federal Government, which is repayable in instalments within the 20 years ending 1975.

Licence fees have increased by \$892,450, due mainly to an amendment whereby the gross amount of moneys received in each year from licence fees is paid to the Corporation.



All expenses relating to the International Short-Wave Service are directly chargeable to the Federal Government as appropriated annually by Parliament. These are not considered chargeable to the Canadian Broadcasting Corporation because the fees collected from licences are used only to serve listeners within Canada.

#### 7.—Income and Expenditures of the CBC, Years Ended Mar. 31, 1946-48

Item	1946		1947		1948	
	\$	p.c.	\$	p.c.	\$	p.c.
<b>Income</b>						
Licence fees.....	3,773,285	61.53	3,905,841	58.79	4,798,291	60.40
Commercial.....	1,683,838	27.47	1,781,290	26.82	1,842,558	23.19
Miscellaneous.....	68,441	1.11	73,915	1.11	35,530	0.45
International Short-Wave Service.....	606,700	9.89	881,621	13.28	1,268,073	15.96
<b>Totals, Net Income.....</b>	<b>6,132,264</b>	<b>100.00</b>	<b>6,642,667</b>	<b>100.00</b>	<b>7,944,452</b>	<b>100.00</b>
<b>Expenditures</b>						
Programs.....	2,939,376	47.32	2,933,428	43.98	3,339,624	43.21
Station network.....	971,441	15.65	966,220	14.49	964,702	12.48
Engineering.....	1,160,675	18.69	1,215,233	18.22	1,244,268	16.10
General and administration.....	285,302	4.60	391,323	5.87	398,545	5.16
Press and information.....	145,184	2.34	179,972	2.70	185,543	2.40
Commercial division.....	130,903	2.10	141,853	2.12	160,712	2.08
Depreciation.....	—	—	—	—	172,309	2.23
Interest on loan.....	—	—	2,260	0.03	55,000	0.71
International Short-Wave Service.....	577,809	9.30	839,639	12.59	1,207,689	15.63
<b>Totals, Expenditures.....</b>	<b>6,210,690</b>	<b>100.00</b>	<b>6,669,928</b>	<b>100.00</b>	<b>7,728,392</b>	<b>100.00</b>
Operating deficits(—) or surplus(+)	—78,426	...	—27,261	...	+216,060	...

### Section 4.—Privately Owned Radio Broadcasting Stations\*

**Development.**—Privately owned (non-government) broadcasting stations began operations in the early 1920's, about 12 years before any other service was available, and since then have offered regular broadcasting services to communities in every part of Canada. These stations now number 117 with a total wattage of 304,550. Operating mainly in conjunction with A.M. stations, are 20 F.M. stations with a combined power of 18,459 watts. There are in addition eight short-wave stations with a combined power of 6,685 watts. Most of these stations are located in the smaller centres of populations, some of them in remote districts which depend entirely upon privately owned stations for their broadcasting services.

The privately owned stations serve primarily the localities in which they are situated, the community served varying with circumstances. Many such stations are located in very small urban centres where they serve not only the local population but also a larger population scattered throughout the surrounding rural areas. Others may serve a metropolitan area and cities adjacent to it, in addition to the rural audiences and smaller centres lying between or beyond the urban areas.

These privately owned stations have a combined capital investment estimated at about \$20,000,000, employ more than 3,000 persons and disburse in salaries and wages an estimated \$7,000,000 annually. Revenue is obtained entirely from commercial advertising and they receive no part of the licence fee charged against operators of receiving sets. The privately owned stations are required to pay transmitter licence fees to the Canadian Broadcasting Corporation. These totalled approximately \$150,000 for 1949.

\* Revised by T. J. Allard, Manager, Radio Bureau, Ottawa.

**Administration.**—The independent stations operate under the Canadian Broadcasting Act, which is administered by the Canadian Broadcasting Corporation, and under regulations made by the CBC, in addition to the Radio Act and specifications laid down by the Department of Transport. Annual statements of "Proof of Performance", showing that public service obligations have been fulfilled, together with financial statements, must be filed with the licensing authority. Advance copies of programs scheduled must also be filed weekly with the CBC and a program log within seven days following operations. Advertising content or program is limited to 10 p.c. of program time.

**Broadcasting Facilities.**—Licences of the privately owned stations are granted upon recommendation of the Board of Governors of the Canadian Broadcasting Corporation by the Federal Government and are valid (unless cancelled or revoked) for a period of three years. Sale or ownership transfer of any station must be approved by the Federal Government.

The independent stations were at first limited to 1,000 watts power, which limit was recently increased to 5,000 watts. In 1948 three privately owned stations (CKAC, Montreal, CFRB, Toronto and CKLW, Windsor) were authorized to operate on 50,000 watts. The majority still continue to serve on 1,000 to 5,000 watts on the shared channels, the CBC stations occupying the clear channels allocated to Canada and operating in the main on 50,000 watts.

**Network Operations.**—Network operation in Canada (the process of having two or more stations broadcasting the same program at the same time) is at present restricted to the CBC by regulations made under powers granted under Sections 21 and 22 of the CBC Act. The CBC also has the right, except in the case of four stations, to bring commercial and other network programs in from the United States. Some privately owned stations do, however, serve as outlets, either basic or supplementary, for CBC network programs. All food, drug and medicine continuity used on Canadian broadcasting stations must be approved in advance of broadcast by the Department of National Health and Welfare.

## PART VIII.—THE POST OFFICE

The Canada Post Office Department was created at the time of Confederation in 1867 by the Canada Post Office Act for the superintendence and management of the postal service of Canada under the direction of the Postmaster General. For almost a century previous to Confederation postal services in the Canadian Provinces had been controlled by the British Postmasters General and administered by their deputies. Under the French Regime a courier service had been organized as early as 1703 between Quebec, Three Rivers and Montreal, while in 1734 a post road was constructed between the above-mentioned places and post houses, complete with post horses and vehicles, were established for use of travellers.

**Functions.**—The basic task of the Canadian Postal Service is the handling and transmission of mail matters, letters, parcels, newspapers, magazines, etc., and in discharging this duty it maintains a wide variety of services—air mail, railway mail, land mail and water services, etc.

This basic task is carried out by performance of certain functions which include: the sale of postage stamps and other articles of postage; the furnishing of information to the public respecting postage rates and other postal matters; the registration of letters and other articles of mail; the insuring of parcels; the acceptance of C.O.D.

articles for mail and despatch; the sorting, making up and despatching of ordinary and registered mail to other offices; the sorting and delivery of incoming mail of all kinds; the transaction of money-order business and the transaction of Post Office Savings Bank business. Because of its widespread facilities, it has been found expedient for the Post Office to assist other Government Departments in the performance of certain tasks which include: the sale of unemployment insurance stamps; the sale of Government annuities; the sale of radio licences; the distribution of income tax forms and Civil Service application forms and the display of Government posters.

All functions of the Postal Service, as far as the public is concerned, are centred in the post offices, of which 11,930 were in operation at Mar. 31, 1949. Money-order offices numbered 7,614, and postal notes were sold in 10,830 post offices. Postage paid by means of postage stamps in 1948-49 reached \$56,303,157. Post Office Savings Banks are in operation in all parts of the country and on Mar. 31, 1949, had combined deposits of \$37,741,389.

Post offices are established for the transaction of all kinds of postal business at places where the population warrants. The post office is a complete entity in rural districts and smaller urban centres. In the larger towns and cities where there is a main post office and where the population and size of population call for extra services, postal stations are established and sub-post offices are opened up. Letter-carrier delivery—twice daily to residential districts and three times to business districts—is given in 105 cities and towns by a uniformed force of about 5,000 letter carriers.

Postal stations are maintained on the same lines as the main post offices and perform full postal business including general delivery service and a post-office box delivery as well as letter-carrier delivery service, accommodating the surrounding district in which a postal station is maintained.

**Organization.**—The Canada Post Office is divided into two parts: the Operating Service; and the Post Office Department, as headquarters at Ottawa is called. The Operating Service is organized into five regions each under a Regional Director, who is the field representative of the Deputy Postmaster General and the head of one of the Headquarters Branches, viz., Administration, Operations, Communications and Financial.

Operating and secretarial features in the operating field affecting the Post Office and local mail services in urban centres are taken care of by the local postmaster. District Office functions relating to services in the district, and all inspections and investigations, are under District Post Office Inspectors situated at strategic centres across the country.

Postal service is provided in Canada from Newfoundland to the west coast of Vancouver Island, and from Pelee Island, Ont. (the most southerly point of Canada, to settlements and missions far within the Arctic. Points along the Hudson Bay, etc., receive their mail by steamer and on courtesy flights by aircraft, as well as by air-stage services to remote points.

Canada's air-mail system provides several flights daily from east to west and constitutes a great air artery from St. John's, Nfld., to Victoria, B.C., intersected with branch lines and connecting lines radiating to every quarter, and linking up with the United States air-mail system. Since July 1, 1948, all first-class domestic mail up to and including one ounce in weight has been carried (experimentally) by



air between one Canadian point and another, whenever delivery can thus be facilitated. Air-stage service provides the sole means of communication with the outside for many areas in the hinterland. There are approximately 19,000 miles of air-mail and air-stage routes in Canada.

Nevertheless, the principal means of mail transportation is still the railway-mail service which operates along about 40,000 miles of track, and covers an annual track mileage exceeding 45,733,000. The railway-mail service employs a staff of 1,300 mail clerks who prepare the mails for prompt delivery and despatch, while *en route* in the railway mail cars. Like its air-mail service, Canada's railway mail service is one of the most extensive in the world.

An extensive rural mail organization distributes the mail to more remote sections of the country: 4,943 rural mail routes are covered by mail couriers whose daily routes cover 113,000 miles of territory and serve 348,000 rural mail boxes. Isolated points are served by motor-vehicle and stage services. The rural mail routes are laid out in a circular pattern, each about 25 miles in circumference, and the couriers are employed on the tender system, tenders being awarded usually to the lowest tenderer who is paid according to his tender and who must provide all the requisite equipment.

The Post Office delivers an estimated 2,400,000,000 items of mail annually, and to do this utilizes the most up-to-date mechanical handling devices, including conveyer belts and electric cancelling machines, etc., in its larger offices.

The increase in postal business is one of the impressive features of Canada's economic development during the past 15 years. From \$30,367,465 in 1934, net income has increased year by year to \$80,618,401 by Mar. 31, 1949—the gross revenue for the latter year being \$95,957,469, an all-time high.

## Section 1.—Post Office Statistics

Tables 1, 2 and 3 give the number of post offices in operation together with revenues and expenditures for the past few years.

### 1.—Post Offices in Operation, by Provinces, as at Mar. 31, 1945-49

Province or Territory	1945	1946	1947	1948	1949
	No.	No.	No.	No.	No.
Prince Edward Island.....	114	115	109	108	105
Nova Scotia.....	1,475	1,465	1,441	1,396	1,362
New Brunswick.....	991	983	968	949	922
Quebec.....	2,594	2,586	2,577	2,582	2,567
Ontario.....	2,566	2,557	2,562	2,578	2,590
Manitoba.....	795	794	791	802	806
Saskatchewan.....	1,466	1,443	1,429	1,420	1,418
Alberta.....	1,216	1,209	1,195	1,188	1,186
British Columbia.....	914	914	923	920	933
Yukon.....	16	16	15	15	15
Northwest Territories.....	22	23	23	24	26
<b>Canada.....</b>	<b>12,169</b>	<b>12,105</b>	<b>12,033</b>	<b>11,982</b>	<b>11,930</b>

## 2.—Revenues and Expenditures of the Post Office Department, Years Ended Mar. 31, 1940-49

NOTE.—Figures for 1867-1939 will be found in the corresponding tables of previous Year Books, beginning with the 1911 edition.

Year	Gross Revenue	Net Revenue <sup>1</sup>	Expenditures	Surplus (+) Deficit (—)
	\$	\$	\$	\$
1940.....	44,208,369	36,729,105	36,725,870	+3,235
1941.....	48,143,410	40,383,366	38,699,674	+1,683,692
1942.....	55,477,159	45,993,872	41,501,869	+4,492,003
1943.....	59,175,138	48,868,762	44,741,987	+4,126,775
1944.....	73,004,399	61,070,919	48,485,009	+12,585,910
1945.....	79,533,903	66,071,815	54,629,281	+11,442,534
1946.....	83,763,007	68,635,559	57,729,646	+10,905,913
1947.....	86,400,951	72,986,624	64,213,050	+8,773,574
1948.....	91,613,618	77,770,967	67,943,476	+9,827,491
1949.....	95,957,469	80,618,401	77,642,621	+2,975,781

<sup>1</sup> Gross revenue less commissions and allowances to postmasters and other smaller items.

## 3.—Gross Postal Revenues of Offices Collecting Upwards of \$10,000 for the Years Ended Mar. 31, 1948 and 1949

NOTE.—The post offices shown in this table do not include those established at military camps. Money order and postal note commissions are not included in the gross postal revenue. Provincial totals of postal revenues include post offices not separately listed.

Province and Post Office	1948	1949	Province and Post Office	1948	1949
	\$	\$		\$	\$
<b>P. E. Island</b>			<b>New Brunswick</b>		
Charlottetown.....	165,060	174,157	Bathurst.....	36,613	36,466
Summerside.....	46,466	44,499	Campbellton.....	47,866	47,717
<b>Totals, P.E. Island.....</b>	<b>340,471</b>	<b>343,093</b>	Chatham.....	21,676	20,781
<b>Nova Scotia</b>			Dalhousie.....	17,148	17,636
Amherst.....	65,407	63,207	Edmundston.....	35,270	36,223
Annapolis Royal.....	13,172	12,348	Fairville.....	23,178	2
Antigonish.....	38,439	37,783	Fredericton.....	211,698	216,170
Armdale.....	14,026	14,656	Grand Falls.....	15,818	15,893
Berwick.....	10,812	10,316	Hartland.....	1	10,042
Bridgetown.....	16,400	16,462	McAdam.....	10,147	1
Bridgewater.....	35,337	35,109	Moncton.....	798,978	877,521
Chester.....	10,369	1	Newcastle.....	30,517	28,666
Digby.....	24,345	23,730	Saint John.....	564,276	606,367
Glace Bay.....	49,499	47,968	St. Andrews.....	16,684	17,056
Halifax.....	1,889,009	1,439,816	St. Stephen.....	36,565	32,404
Inverness.....	10,133	1	Sackville.....	37,682	38,622
Kentville.....	49,199	48,582	Sussex.....	26,903	26,307
Liverpool.....	26,055	25,805	Woodstock.....	35,965	35,643
Lunenburg.....	22,758	21,829	<b>Totals, New Brunswick</b>	<b>2,553,072</b>	<b>2,636,766</b>
Middleton.....	20,261	19,619	<b>Quebec</b>		
New Glasgow.....	76,970	79,394	Amos.....	29,958	30,098
New Waterford.....	23,051	19,497	Amqui.....	15,195	14,865
North Sydney.....	31,050	28,817	Arvida.....	34,345	36,729
Parrsboro.....	11,235	10,684	Asbestos.....	22,906	21,271
Pictou.....	24,669	22,371	Aylmer East.....	10,282	1
Shelburne.....	15,153	14,047	Bagotville.....	12,459	15,671
Springhill.....	22,791	21,751	Baie Comeau.....	23,897	24,178
Stellarton.....	21,861	20,329	Basilique Ste. Anne.....	40,752	29,986
Sydney.....	177,065	185,298	Beauceville East.....	13,115	12,925
Sydney Mines.....	17,950	16,162	Beauharnois.....	20,428	21,507
Truro.....	109,351	114,194	Bedford.....	12,960	13,382
Westville.....	11,840	10,437	Berthierville.....	14,341	13,573
Windsor.....	32,456	31,252	Bourlamaque.....	12,704	14,714
Wolfville.....	24,839	23,621	Brownburg.....	11,202	10,377
Yarmouth.....	56,226	55,665	Buckingham.....	20,047	19,048
<b>Totals, Nova Scotia.....</b>	<b>3,176,084</b>	<b>3,197,780</b>	Cap de la Madeleine.....	27,676	35,164
			Chicoutimi.....	104,219	114,341
			Coaticook.....	21,771	19,639

<sup>1</sup> Less than \$10,000.

<sup>2</sup> Included with Saint John.

### 3.—Gross Postal Revenues of Offices Collecting Upwards of \$10,000 for the Years Ended Mar. 31, 1948 and 1949—continued

Province and Post Office	1948	1949	Province and Post Office	1948	1949
	\$	\$		\$	\$
<b>Quebec—continued</b>			<b>Quebec—concluded</b>		
Cowansville.....	18,910	19,767	Thetford Mines.....	51,222	53,613
Danville.....	10,109	1	Three Rivers.....	183,098	192,100
Dolbeau.....	21,785	20,667	Timiskaming Station.....	16,053	14,942
Donnacona.....	10,732	10,449	Trois-Pistoles.....	13,053	13,174
Drummondville.....	74,927	82,427	Val-d'Or.....	49,595	49,392
East Angus.....	12,424	11,642	Valleyfield.....	48,723	50,356
Farnham.....	22,633	20,484	Victoriaville.....	53,112	54,744
Gardenvale.....	31,571	50,662	Waterloo.....	18,230	18,332
Gaspé.....	18,228	16,934			
Gatineau.....	14,979	16,282	<b>Totals, Quebec.....</b>	<b>18,647,413</b>	<b>19,754,445</b>
Granby.....	81,910	93,414			
Grand Mère.....	27,419	28,005	<b>Ontario</b>		
Hull.....	88,890	98,926	Acton.....	18,060	16,573
Huntingdon.....	18,420	17,781	Ajax.....	10,573	1
Iberville.....	15,064	12,851	Alexandria.....	14,010	13,683
Joliette.....	53,005	58,245	Alliston.....	11,832	12,071
Jonquière-Kenogami.....	60,706	62,969	Almorte.....	13,904	13,867
Knowlton.....	10,529	10,690	Amherstburg.....	23,238	24,164
Lachute.....	22,860	24,007	Arnprior.....	26,351	26,894
Lac Mégantic.....	22,168	22,252	Aurora.....	26,292	25,780
La Malbaie.....	13,289	13,656	Aylmer West.....	27,379	25,460
Laprairie.....	12,392	11,300	Bancroft.....	10,697	11,591
La Sarre.....	19,187	19,776	Barrie.....	86,286	91,036
La Tuque.....	28,718	29,814	Batawa.....	15,910	17,322
Lennoxville.....	23,448	22,969	Beamsville.....	14,094	15,146
Lévis.....	101,809	103,976	Bellevue.....	154,773	173,138
Loretteville.....	10,176	10,546	Blenheim.....	21,711	22,138
Louiseville.....	13,070	13,278	Blind River.....	14,675	14,387
Magog.....	31,853	32,682	Bowmanville.....	30,058	29,439
Malartic.....	20,144	18,943	Bracebridge.....	29,236	30,049
Maniwaki.....	16,741	16,686	Bradford.....	13,666	12,935
Marieville.....	10,018	10,341	Brampton.....	58,174	67,699
Matane.....	28,504	29,140	Brantford.....	327,849	344,136
Mont Joli.....	22,626	22,924	Brighton.....	12,145	12,227
Mont Laurier.....	16,159	16,214	Brockville.....	132,396	129,311
Montmagny.....	24,546	24,522	Burlington.....	44,494	42,382
Montreal.....	11,169,591	11,890,889	Caledonia.....	10,268	1
Neuville.....	1	10,117	Campbellford.....	20,998	19,976
Nicolet.....	19,264	20,279	Cardinal.....	12,012	10,946
Noranda.....	49,443	56,889	Carleton Place.....	26,740	24,739
Plessisville.....	20,564	21,885	Chapleau.....	16,124	16,772
Pointe-au-Pic.....	11,640	10,704	Chatham.....	179,679	196,479
Port Alfred.....	10,380	11,173	Chesley.....	13,391	12,181
Quebec.....	1,852,097	2,014,593	Clinton.....	20,724	20,201
Richmond.....	17,927	16,746	Cobalt.....	15,607	14,029
Rimouski.....	64,543	80,959	Cobourg.....	48,819	62,410
Rivière-du-Loup.....	14,953	12,946	Cochrane.....	29,576	28,463
Rivière-du-Loup-Centre.....	10,341	11,501	Collingwood.....	35,523	35,021
Rivière-du-Loup Station.....	14,978	14,963	Cooksville.....	12,905	14,808
Roberval.....	21,591	21,661	Copper Cliff.....	21,590	20,762
Rock Island.....	25,507	26,263	Cornwall.....	120,955	129,459
Rouyn.....	50,992	49,665	Deep River.....	12,375	12,165
Ste. Agathe-des-Monts.....	36,747	35,439	Delhi.....	22,581	20,815
Ste. Anne de Beaupré.....	15,116	15,990	Dresden.....	12,113	12,552
Ste. Anne-de-Bellevue.....	18,831	17,235	Dryden.....	23,685	25,066
Ste. Anne-de-la-Pocatière.....	13,299	12,655	Dundas.....	41,511	40,223
St. Félicien.....	11,781	12,630	Dunnville.....	34,501	37,011
St. Georges-de-Beauce.....	19,257	20,452	Durham.....	10,379	10,775
St. Hyacinthe.....	92,463	100,948	Elmira.....	17,054	16,185
St. Jean.....	70,525	74,032	Englehart.....	11,116	11,258
St. Jérôme.....	47,228	53,871	Espanola.....	15,397	14,587
St. Joseph-d'Alma.....	18,988	18,664	Essex.....	21,789	19,592
St. Joseph-de-Beauce.....	11,651	11,714	Exeter.....	16,310	17,849
Ste. Marie-Beauce.....	12,834	13,591	Fenelon Falls.....	10,191	10,537
St. Pascal.....	10,409	10,095	Fergus.....	31,898	30,979
St. Raymond.....	10,733	10,764	Forest.....	12,197	12,558
St. Thérèse-de-Blainville.....	22,896	24,249	Fort Erie.....	19,582	62,775
Shawinigan Falls.....	73,883	79,040	Fort Erie North.....	38,311	2
Sherbrooke.....	262,107	294,528			
Sorel.....	41,515	39,037			

<sup>1</sup> Less than \$10,000.

<sup>2</sup> Included with Fort Erie.



### 3.—Gross Postal Revenues of Offices Collecting Upwards of \$10,000 for the Years Ended Mar. 31, 1948 and 1949—continued

Province and Post Office	1948	1949	Province and Post Office	1948	1949
Ontario—continued	\$	\$	Ontario—concluded	\$	\$
Port Frances.....	48,838	48,655	Pictou.....	37,531	38,215
Port William.....	246,086	258,824	Port Arthur.....	199,945	204,782
Galt.....	136,852	139,163	Port Colborne.....	60,295	58,748
Gananoque.....	36,496	36,363	Port Credit.....	31,155	32,420
Georgetown.....	46,109	49,877	Port Dalhousie.....	14,205	14,943
Geraldton.....	25,939	25,059	Port Dover.....	14,126	14,501
Goderich.....	34,655	33,197	Port Elgin.....	12,992	11,986
Gravenhurst.....	26,167	25,753	Port Hope.....	46,753	49,972
Grimsbv.....	25,166	25,283	Prescott.....	24,871	24,195
Guelph.....	228,831	230,706	Preston.....	52,918	53,673
Hagersville.....	14,651	14,973	Red Lake.....	15,539	11,465
Haileybury.....	18,158	18,286	Renfrew.....	44,671	46,288
Haliburton.....	10,638	12,273	Richmond Hill.....	13,746	14,084
Hamilton.....	1,535,558	1,622,017	Ridgetown.....	15,750	16,499
Hanover.....	23,391	22,376	Ridgeway.....	1	10,697
Harriston.....	12,330	12,462	Rolphton.....	1	18,227
Harrow.....	15,191	14,681	St. Catharines.....	291,653	296,804
Hawkesbury.....	19,907	20,811	St. Mary's.....	26,408	25,873
Hearst.....	19,497	20,203	St. Thomas.....	122,981	129,859
Hespeler.....	23,685	23,443	Sarnia.....	162,260	173,417
Huntsville.....	40,161	39,862	Sault Ste. Marie.....	164,667	172,839
Ingersoll.....	42,437	42,063	Scarborough Bluffs.....	10,551	11,747
Iroquois Falls.....	11,649	12,367	Schreiber.....	12,852	13,650
Islington.....	21,946	2	Schumacher.....	24,715	24,944
Kapuskasing.....	37,178	35,712	Seaford.....	15,888	15,557
Kemptville.....	12,625	12,348	Shelburne.....	10,066	1
Kenora.....	63,056	65,296	Simcoe.....	81,404	82,118
Kincardine.....	19,190	18,777	Sioux Lookout.....	22,355	21,071
Kingston.....	310,707	322,952	Smiths Falls.....	43,491	45,889
Kingsville.....	25,765	23,548	South Porcupine.....	28,001	25,823
Kirkland Lake.....	100,596	99,414	Stoney Creek.....	10,712	12,617
Kitchener.....	349,727	352,058	Stouffville.....	11,936	11,588
Lakefield.....	10,945	11,396	Stratford.....	121,818	129,688
Lansing.....	19,279	23,462	Strathroy.....	23,920	23,905
Leamington.....	55,595	54,011	Sturgeon Falls.....	18,623	17,865
Lindsay.....	63,919	69,291	Sudbury.....	234,962	249,053
Listowel.....	22,204	22,241	Terrace Bay.....	12,110	14,201
Little Current.....	10,596	11,519	Thessalon.....	10,557	18,495
London.....	1,053,640	1,179,462	Thornold.....	32,142	30,821
Malton.....	13,630	17,715	Tilbury.....	15,197	16,388
Marathon.....	13,522	13,004	Tillsonburg.....	42,057	41,730
Markham.....	1	10,014	Timmins.....	131,162	134,277
Mattawa.....	10,021	12,844	Toronto.....	16,336,273	17,645,640
Meaford.....	18,173	17,474	Trenton.....	57,755	65,224
Merritton.....	16,558	16,990	Tweed.....	13,392	14,137
Midland.....	43,949	41,933	Uxbridge.....	12,121	11,713
Milton West.....	19,913	20,361	Walkerton.....	21,638	22,332
Mitchell.....	11,963	11,305	Wallaceburg.....	40,560	43,070
Morrisburg.....	14,358	14,510	Waterford.....	12,387	12,828
Mount Forest.....	12,322	13,946	Waterloo.....	138,093	142,317
Napanee.....	31,338	31,460	Watford.....	1	10,012
New Liskeard.....	50,897	51,189	Welland.....	153,455	161,904
Newmarket.....	36,831	35,993	Westboro.....	22,699	24,891
Niagara Falls.....	278,690	304,209	Whitby.....	31,179	30,580
Niagara-on-the-Lake.....	17,397	21,272	Wiaraton.....	13,734	13,217
Nipigon.....	12,977	17,925	Willowdale.....	18,093	19,268
North Bay.....	140,196	144,759	Windsor.....	969,335	1,005,675
Norwich.....	11,027	10,961	Wingham.....	19,268	19,931
Oakville.....	67,624	70,904	Woodstock.....	115,976	123,150
Orangeville.....	23,112	22,840			
Orillia.....	93,434	97,774			
Oshawa.....	260,720	270,767			
Ottawa.....	1,912,234	2,037,452			
Owen Sound.....	105,549	114,940			
Paris.....	33,140	33,004			
Parry Sound.....	37,687	36,819			
Pembroke.....	66,280	71,706			
Penetanguishene.....	16,371	15,785			
Perth.....	41,754	42,989			
Peterborough.....	253,669	276,377			
Petrolia.....	18,185	16,577			
			<b>Totals, Ontario</b>	<b>33,799,643</b>	<b>35,774,655</b>
			<b>Manitoba</b>		
			Altona.....	1	10,361
			Bissett.....	1	10,499
			Boissevain.....	10,859	10,254
			Brandon.....	170,656	177,545
			Carman.....	14,768	15,341
			Dauphin.....	44,843	44,244

<sup>1</sup> Less than \$10,000.<sup>2</sup> Included with Toronto.

### 3.—Gross Postal Revenues of Offices Collecting Upwards of \$10,000 for the Years Ended Mar. 31, 1948 and 1949—continued

Province and Post Office	1948	1949	Province and Post Office	1948	1949
<b>Manitoba—concluded</b>	\$	\$	<b>Alberta—concluded</b>	\$	\$
Flin Flon.....	43,137	42,238	Bonnyville.....	1	10,222
Killarney.....	10,750	11,289	Brooks.....	20,825	23,233
Minnedosa.....	16,737	15,794	Calgary.....	1,366,635	1,446,995
Morden.....	15,355	13,481	Camrose.....	36,153	36,423
Morris.....	10,140	1	Cardston.....	19,513	18,674
Neepawa.....	24,670	25,052	Claresholm.....	13,870	13,140
Portage la Prairie.....	59,992	60,707	Coaldale.....	11,283	1
Rivers.....	1	12,467	Coleman.....	15,410	16,224
Roblin.....	11,864	11,692	Didsbury.....	13,136	13,414
Russell.....	11,771	11,429	Drumheller.....	40,419	39,299
Selkirk.....	22,528	21,421	Edmonton.....	1,568,367	1,672,679
Souris.....	13,378	12,626	Edson.....	17,118	17,345
Steinbach.....	13,985	12,551	Fairview.....	10,162	1
Swan River.....	22,679	21,969	Grande Prairie.....	35,567	36,717
The Pas.....	28,808	26,665	Hanna.....	17,954	18,055
Transcona.....	17,586	15,787	High River.....	21,362	19,802
Virten.....	17,576	16,068	Innisfail.....	18,631	18,459
Wawanesa.....	10,352	11,491	Jasper.....	19,116	17,346
Winkler.....	10,294	10,355	Lacombe.....	26,310	27,032
Winnipeg.....	5,602,725	5,898,322	Leduc.....	15,634	16,101
<b>Totals, Manitoba.....</b>	<b>7,069,102</b>	<b>7,347,269</b>	Lethbridge.....	199,303	209,620
<b>Saskatchewan</b>			Macleod.....	16,363	15,926
Assiniboia.....	21,560	21,136	Medicine Hat.....	110,850	107,156
Battleford.....	11,622	1	North Edmonton.....	11,933	12,291
Biggar.....	16,890	16,090	Olds.....	23,165	22,309
Broadview.....	10,872	10,534	Peace River.....	22,273	20,316
Canora.....	15,574	14,972	Pincher Creek.....	16,037	16,128
Estevan.....	34,683	33,855	Ponoka.....	22,719	23,645
Eston.....	10,237	10,665	Raymond.....	16,466	14,820
Gravelbourg.....	12,498	12,445	Red Deer.....	65,755	71,076
Humboldt.....	25,518	25,179	Rocky Mountain House.....	12,437	12,968
Indian Head.....	12,868	12,609	St. Paul.....	13,969	13,171
Kamsack.....	16,860	15,731	Stettler.....	20,961	22,659
Kerrobert.....	10,317	1	Stony Plain.....	12,369	10,332
Kindersley.....	16,313	15,611	Taber.....	20,868	22,036
Lloydminster.....	33,650	37,698	Three Hills.....	19,357	22,033
Maple Creek.....	18,113	17,047	Vegreville.....	13,607	18,817
Meadow Lake.....	15,187	15,012	Vermilion.....	22,732	22,887
Melfort.....	32,257	31,594	Viking.....	10,477	10,325
Melville.....	32,692	30,066	Vulcan.....	11,697	11,950
Moose Jaw.....	210,443	211,004	Wainwright.....	14,096	14,337
Moosomin.....	14,410	14,002	Westlock.....	16,993	16,441
Nipawin.....	20,866	20,418	Wetaskiwin.....	31,584	29,784
North Battleford.....	71,641	77,719	<b>Totals, Alberta.....</b>	<b>5,453,360</b>	<b>5,607,556</b>
Prince Albert.....	129,314	137,017	<b>British Columbia</b>		
Regina.....	1,762,722	1,762,399	Abbotsford.....	32,481	33,706
Rosetown.....	19,406	20,167	Alberni.....	20,005	18,337
Rosthern.....	13,031	11,565	Armstrong.....	17,440	16,490
Saskatoon.....	650,552	677,226	Brighouse.....	1	10,855
Shaunavon.....	17,976	17,759	Campbell River.....	14,780	15,774
Swift Current.....	77,283	78,191	Chemainus.....	12,806	12,724
Tisdale.....	26,836	27,256	Chilliwack.....	75,671	74,256
Unity.....	11,828	12,789	Cloverdale.....	28,399	30,109
Wadena.....	13,804	13,229	Courtenay.....	38,629	38,505
Watrous.....	11,403	10,599	Cranbrook.....	37,982	38,883
Weyburn.....	47,749	44,667	Creston.....	22,853	23,397
Wilkie.....	15,021	14,090	Cumberland.....	11,770	10,858
Wynyard.....	11,830	11,265	Dawson Creek.....	34,183	31,004
Yorkton.....	77,385	79,698	Duncan.....	64,471	63,871
<b>Totals, Saskatchewan.....</b>	<b>5,427,754</b>	<b>5,349,919</b>	Fernie.....	22,330	21,607
<b>Alberta</b>			Fort St. John.....	12,674	13,245
Athabaska.....	11,168	11,369	Ganges.....	11,673	11,460
Banff.....	43,946	38,891	Grand Forks.....	18,183	16,026
Barrhead.....	16,548	15,212	Greenwood.....	10,866	1
Blairmore.....	14,445	14,786	Haney.....	23,190	25,024
			Hope.....	12,880	12,898
			Kamloops.....	100,150	104,975

<sup>1</sup> Less than \$10,000.

### 3.—Gross Postal Revenues of Offices Collecting Upwards of \$10,000 for the Years Ended Mar. 31, 1948 and 1949—concluded

Province and Post Office	1948	1949	Province and Post Office	1948	1949
	\$	\$		\$	\$
<b>British Columbia</b> —continued			<b>British Columbia</b> —concluded		
Kelowna.....	119,484	124,511	Westview.....	13,021	13,739
Kimberley.....	33,227	35,722	White Rock.....	25,488	26,095
Ladner.....	17,729	19,026	Williams Lake.....	14,128	14,440
Ladysmith.....	17,017	17,296	<b>Totals, British Columbia</b>	<b>9,091,989</b>	<b>9,294,559</b>
Langley Prairie.....	29,073	30,195			
Merritt.....	10,272	1	<b>Yukon</b>		
Mission City.....	36,859	37,909	Dawson.....	14,759	14,662
Nanaimo.....	100,050	106,160	Whitehorse.....	34,167	33,958
Nelson.....	91,184	95,122	<b>Totals, Yukon.....</b>	<b>59,154</b>	<b>59,319</b>
New Denver.....	10,111	10,105			
New Westminster.....	372,269	376,683	<b>Northwest Territories</b>		
Ocean Falls.....	17,451	16,469	Yellowknife.....	30,864	28,609
Oliver.....	23,821	23,346	<b>Totals, N.W.T.....</b>	<b>44,567</b>	<b>41,739</b>
Osoyoos.....	13,336	12,352			
Parksville.....	10,047	10,528	<b>Summary by Provinces</b>		
Penticton.....	78,611	83,794	Prince Edward Island....	340,471	343,093
Port Alberni.....	55,730	56,955	Nova Scotia.....	3,176,084	3,197,780
Port Coquitlam.....	12,075	12,831	New Brunswick.....	2,553,072	2,636,766
Powell River.....	30,507	28,430	Quebec.....	18,647,413	19,754,445
Prince George.....	59,908	61,709	Ontario.....	33,799,643	35,774,655
Prince Rupert.....	75,972	75,877	Manitoba.....	7,069,102	7,347,269
Princeton.....	16,302	17,118	Saskatchewan.....	5,427,754	5,349,919
Qualicum Beach.....	11,040	11,430	Alberta.....	5,453,360	5,607,556
Quesnel.....	17,864	18,875	British Columbia.....	9,091,989	9,294,559
Revelstoke.....	28,665	25,752	Yukon and N.W.T.....	103,721	101,058
Rossland.....	22,896	20,789	<b>Canada.....</b>	<b>85,662,609</b>	<b>89,407,100</b>
Salmon Arm.....	26,138	26,196	<b>P.C. of all Postal Revenue</b>	<b>93.5</b>	<b>99.7</b>
Sardis.....	14,455	12,100			
Sidney.....	20,381	21,077			
Smithers.....	13,942	14,744			
Steveston.....	10,437	10,297			
Trail.....	95,497	97,830			
Vancouver.....	4,758,603	4,901,262			
Vernon.....	98,909	92,382			
Victoria.....	1,035,268	1,074,284			
Wells.....	11,325	1			
West Summerland.....	16,465	16,805			

<sup>1</sup> Less than \$10,000.

**Postage.**—The net revenue receipts shown in Table 2 are received mainly in the form of postage. The gross value of the postage stamps, post cards, etc., sold during each of the latest five fiscal years was \$53,250,630 in 1945, \$52,135,846 in 1946, \$55,263,063 in 1947, \$56,303,157 in 1948 and \$56,317,570 in 1949. Receipts from postage paid in cash were as follows \$20,498,106 in 1945, \$23,252,162 in 1946, \$24,312,374 in 1947, \$28,959,194 in 1948 and \$33,315,148 in 1949.

## Section 2.—Auxiliary Postal Services

The auxiliary postal services include the issuing of money orders (including postal notes) and the facilities offered by the Post Office Savings Bank. In 1868, there were 515 money-order offices in operation, issuing orders to an amount of \$3,342,574; the following tables show the magnitude of operations in recent years. Statistical tables showing deposits with the Government Savings Banks and the business of the Post Office Savings Bank are included in the Chapter on Currency and Banking, pp. 1077-78.



# 4.—Operations of the Money-Order System, Years Ended Mar. 31, 1940-49

NOTE.—Figures for 1868-1939 will be found in the corresponding table of previous Year Books, beginning with the 1911 edition.

Year	Money-Order Offices in Canada	Money-Orders Issued in Canada	Value of Orders Issued in Canada	Value Payable in—		Value of Orders Issued in Other Countries, Payable in Canada
				Canada	Other Countries	
	No.	No.	\$	\$	\$	\$
1940.....	7,103	15,161,896	156,340,540	148,560,567	7,779,973	5,578,250
1941.....	7,117	16,119,586	173,565,550	168,548,852	5,016,698	5,700,036
1942.....	7,198	17,465,646	205,675,481	202,102,135	3,573,346	5,913,324
1943.....	7,306	18,627,228	236,925,920	233,004,136	3,921,784	6,887,250
1944.....	7,362	19,554,760	262,297,331	256,630,949	5,666,382	8,440,436
1945.....	7,406	20,742,643	281,890,291	276,704,712	5,185,579	8,467,849
1946.....	7,377	22,031,756	290,933,503	285,574,174	5,359,329	8,732,635
1947.....	7,416	25,184,900	329,557,703	321,728,205	7,829,498	9,150,238
1948.....	7,546	27,705,523	370,232,987	359,633,658	10,599,329	7,722,555
1949.....	7,614	28,851,065	415,703,754	409,167,635	6,536,119	7,410,014

# 5.—Money-Order Statistics, by Provinces, and Total Postal Notes, Years Ended Mar. 31, 1945-49

Item and Province	1945	1946	1947	1948	1949
	No.	No.	No.	No.	No.
<b>Money-Order Offices in—</b>					
Prince Edward Island.....	77	75	75	76	77
Nova Scotia.....	503	492	497	502	506
New Brunswick.....	352	345	342	343	343
Quebec.....	1,673	1,693	1,711	1,762	1,788
Ontario.....	1,787	1,771	1,775	1,801	1,811
Manitoba.....	521	512	523	528	538
Saskatchewan.....	1,076	1,085	1,088	1,094	1,095
Alberta.....	783	783	781	794	800
British Columbia.....	627	615	618	640	650
Yukon.....	7	6	6	6	6
<b>Totals.....</b>	<b>7,406</b>	<b>7,377</b>	<b>7,416</b>	<b>7,546</b>	<b>7,614</b>
<b>Money Orders Issued in—</b>					
Prince Edward Island.....	181,925	202,585	220,406	223,041	232,081
Nova Scotia.....	1,551,930	1,579,451	1,634,474	1,817,377	1,884,410
New Brunswick.....	888,135	982,667	1,110,518	1,353,702	1,399,023
Quebec.....	4,094,144	4,551,564	5,399,122	5,992,709	6,280,065
Ontario.....	5,067,895	5,306,932	6,065,536	6,906,321	7,551,610
Manitoba.....	1,372,181	1,451,187	1,654,409	1,845,596	1,901,814
Saskatchewan.....	3,206,092	3,337,426	3,757,123	3,827,780	3,672,518
Alberta.....	2,225,240	2,301,525	2,649,806	2,724,677	2,817,417
British Columbia.....	2,118,494	2,293,385	2,666,225	2,979,418	3,072,016
Yukon.....	36,607	25,034	27,781	34,902	40,111
<b>Totals.....</b>	<b>20,742,643</b>	<b>22,031,756</b>	<b>25,184,900</b>	<b>27,705,523</b>	<b>28,851,065</b>
<b>Value of Money Orders Issued in—</b>					
	\$	\$	\$	\$	\$
Prince Edward Island.....	2,073,992	2,210,312	2,406,466	2,527,623	2,762,235
Nova Scotia.....	19,979,308	20,028,800	19,860,591	21,088,234	23,294,567
New Brunswick.....	11,696,243	13,156,393	14,735,693	16,116,942	17,661,065
Quebec.....	49,444,308	55,045,230	66,017,162	76,889,175	86,113,618
Ontario.....	66,711,629	68,666,973	77,847,614	91,512,464	107,616,402
Manitoba.....	19,261,874	20,012,714	22,685,194	24,247,664	27,320,061
Saskatchewan.....	51,823,081	50,088,498	55,194,946	57,016,049	59,822,985
Alberta.....	32,006,669	31,612,167	36,615,021	39,533,100	44,478,111
British Columbia.....	28,133,282	29,633,771	34,161,178	40,564,045	45,789,065
Yukon.....	759,905	478,645	533,835	737,689	845,645
<b>Totals.....</b>	<b>281,890,291</b>	<b>290,933,503</b>	<b>329,557,700</b>	<b>370,232,985</b>	<b>415,703,754</b>

### 5.—Money-Order Statistics, by Provinces, and Total Postal Notes, Years Ended Mar. 31, 1945-49—concluded

Item and Province	1945	1946	1947	1948	1949
	No.	No.	No.	No.	No.
<b>Money Orders Paid in—</b>					
Prince Edward Island.....	74,787	75,530	84,645	92,920	93,619
Nova Scotia.....	1,103,213	1,103,849	1,237,002	1,473,275	1,531,345
New Brunswick.....	1,108,460	1,306,305	1,382,115	1,587,488	1,671,981
Quebec.....	3,400,610	3,618,392	4,201,132	4,728,245	5,003,893
Ontario.....	6,527,068	6,927,770	7,866,635	8,761,204	9,575,107
Manitoba.....	3,460,394	3,692,263	4,038,298	4,318,264	4,431,150
Saskatchewan.....	2,390,083	2,442,250	2,833,207	2,923,866	2,818,397
Alberta.....	1,069,728	1,095,306	1,217,371	1,304,699	1,334,668
British Columbia.....	1,341,388	1,428,945	1,618,987	1,910,293	2,045,231
Yukon.....	4,484	3,659	3,644	4,443	4,719
<b>Totals.....</b>	<b>20,480,220</b>	<b>21,694,269</b>	<b>24,482,936</b>	<b>27,104,697</b>	<b>28,510,110</b>
	\$	\$	\$	\$	\$
<b>Value of Money Orders Paid in—</b>					
Prince Edward Island.....	1,230,365	1,201,480	1,311,873	1,429,711	1,489,373
Nova Scotia.....	14,873,539	15,012,999	16,351,247	18,307,587	20,725,814
New Brunswick.....	13,198,115	15,511,658	17,073,577	18,029,190	20,378,862
Quebec.....	45,558,238	49,464,662	57,271,560	66,846,378	75,409,630
Ontario.....	82,783,810	85,445,872	95,128,575	108,809,663	127,976,603
Manitoba.....	46,285,830	46,728,702	50,828,039	55,088,801	63,386,122
Saskatchewan.....	37,445,812	36,838,841	41,943,858	44,017,374	45,595,118
Alberta.....	20,822,987	20,480,915	22,880,059	25,061,187	27,307,285
British Columbia.....	22,536,366	22,928,481	25,421,174	30,211,455	35,040,497
Yukon.....	110,905	97,544	93,069	119,520	128,038
<b>Totals.....</b>	<b>284,845,967</b>	<b>293,711,154</b>	<b>328,303,131</b>	<b>367,920,866</b>	<b>417,437,342</b>
<b>Postal Notes—</b>					
Total notes paid.....No.	10,852,629	9,940,481	8,335,143	7,742,159	8,828,556
Total value, including postal note scrip.....\$	27,381,373	26,840,747	22,324,040	19,530,959	29,778,447

## PART IX.—THE PRESS

The tables of this Part are based on data obtained from *Canadian Advertising*. One serious difficulty has been encountered in connection with the compilation of circulation figures. In the case of daily newspapers, reliable circulation figures are relatively easy to obtain since, in their own best interest, such papers qualify for and subscribe to the Audit Bureau of Circulation requirements. In such cases A.B.C. 'net paid' figures were used. However, it is difficult to obtain reliable circulation figures for many weekly newspapers which do not subscribe to the Audit Bureau. In these cases, total circulation (paid and free) was taken where such figures were supported by sworn statements or some other reliable record.

The term "Controlled Distribution" is frequently met with in weekly newspaper reports. Exactly what this term means is doubtful. In some cases controlled distribution is probably legitimately subscribed and paid for, whereas in others the term may cover free distribution with various degrees of control. It is considered unwise, therefore, to combine all such circulation figures. Yet, since controlled distribution cannot be ignored, papers so reporting are shown separately in Table 5.

In compiling magazine circulation, total net paid figures, as reported by publishers to the Audit Bureau (including bulk sales), were used. In the relatively few cases where such figures were not available, minimum publishers' claims or sworn statements were accepted.

**Daily Newspapers.**—Daily newspapers are published in Canada in three main language groups: English-language, French-language and foreign-languages. French daily newspapers have, as would be expected, a wide circulation in the Province of Quebec and some of the largest of these papers have been established in the Province for over 60 years. Ten of the 11 French-language newspapers are published in that Province, the other being in the adjoining Province of Ontario. Over 93 p.c. of the total circulation of the English and French dailies is in the urban centres of 20,000 population or over.

**Weekly Newspapers.\***—The weekly newspapers have a somewhat wider circulation; only 61 p.c. of the stated circulation of weekly English-language newspapers (exclusive of the 'controlled' distribution given in Table 5), is in cities of 20,000 population or over and about 80 p.c. of the French-language weeklies. Canada is well served by foreign-language weekly newspapers. In 1948, they had a stated circulation of 204,143 copies among which Ukrainian papers had a circulation of 70,401 copies, German 37,874, Yiddish 28,262 and Polish 16,425 copies.

**Other Publications and Periodicals.**—Table 7 gives the number of publications, other than newspapers, published in Canada. Monthly and weekly magazines and periodicals enjoy the largest circulation while those dealing with home, social and welfare, and agricultural and rural topics, religious, trade, industry and related publications are the most popular types.

\* Including a very few semi- and tri-weekly newspapers.

**1.—Estimated Numbers and Circulations<sup>1</sup> of Reporting Daily and Weekly<sup>2</sup> English-Language Newspapers, by Provinces, 1946-48**

NOTE.—Figures for the years 1938-45 are given at p. 788 of the 1948-49 Year Book.

Province	1946				1947				1948			
	Daily		Weekly		Daily		Weekly		Daily		Weekly	
	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation
P.E.I.....	2	16,125	2	6,875	2	17,154	2	4,119	2	17,370	2	4,116
N.S.....	7	149,251	28	66,050	7	151,990	28	67,742	7	155,864	28	69,672
N.B.....	3	58,153	20	39,268	3	61,556	15	40,752	4	63,140	15	41,408
Que.....	5	237,793	25	106,716	5	249,606	25	124,379	5	260,811	26	134,380
Ont.....	36	1,253,336	247	407,360	37	1,322,131	239	400,752	37	1,362,732	244	419,359
Man.....	4	140,900	62	64,381	5	150,527	61	63,617	6	179,157	65	66,173
Sask.....	4	77,360	134	117,795	4	82,344	138	116,695	4	83,553	138	126,913
Alta.....	6	135,446	87	86,239	6	140,486	91	89,512	6	152,578	99	95,858
B.C.....	11	313,038	68	140,355	10	318,372	77	154,795	10	345,932	78	160,052
Yukon and N.W.T...	—	...	3	1,812	—	...	3	1,932	—	...	3	2,382
Canada..	78	2,381,402	682	2,161,009	79	2,494,166	684	2,275,237	81	2,621,137	705	2,476,988

<sup>1</sup> Circulation not reported in all cases.

<sup>2</sup> Includes tri-weeklies and national weekend papers.



## 2.—Estimated Numbers and Circulations<sup>1</sup> of Reporting Daily and Weekly<sup>2</sup> French-Language Newspapers, by Provinces, 1946-48

NOTE.—Figures for the years 1938-45 are given at p. 739 of the 1948-49 Year Book.

Province	1946				1947				1948			
	Daily		Weekly		Daily		Weekly		Daily		Weekly	
	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation
P.E.I.....	—	—	—	—	—	—	—	1,422	—	—	1	1,473
N.S.....	—	—	1	1,377	—	—	2	11,727	—	—	2	11,727
N.B.....	—	—	2	12,567	—	—	89	348,119	10	560,433	94	407,805
Que.....	10	521,730	88	305,056	10	551,424	2	4,120	1	24,605	2	4,120
Ont.....	1	23,432	2	4,120	1	23,287	—	8,470	—	—	1	8,833
Man.....	—	—	1	7,981	—	—	1	914	—	—	1	914
Sask.....	—	—	1	886	—	—	1	3,673	—	—	1	3,673
Alta.....	—	—	1	3,673	—	—	—	—	—	—	—	—
B.C.....	—	—	—	—	—	—	—	—	—	—	—	—
<b>Totals....</b>	<b>11</b>	<b>545,162</b>	<b>102</b>	<b>1,173,035</b>	<b>11</b>	<b>574,711</b>	<b>103</b>	<b>1,238,966</b>	<b>11</b>	<b>585,038</b>	<b>109</b>	<b>1,356,625</b>

<sup>1</sup> Circulation not reported in all cases.

<sup>2</sup> Includes national weekend papers.

## 3.—Estimated Numbers and Circulations of Reporting Daily and Weekly English-Language Newspapers in Urban Centres of 20,000 Population or Over, 1947 and 1948

NOTE.—Figures for 1945 and 1946 are given at p. 753 of the 1947 Year Book.

Urban Centre	Census 1941	1947				1948			
	Households	Daily		Weekly		Daily		Weekly	
		No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation
Montreal.....	203,685	3	235,222	4	347,766 <sup>1</sup>	3	246,706	7	608,932 <sup>2</sup>
Toronto.....	175,736	4	741,449	3	925,562 <sup>3</sup>	4	764,942	3	925,150 <sup>3</sup>
Vancouver.....	80,826	3	256,712	1	3,750	3	280,386	2	8,803 <sup>3</sup>
Winnipeg.....	59,607	2	142,647	1	4,274	3	171,099	1	5,202
Hamilton.....	43,076	1	67,371	—	—	1	71,176	—	—
Ottawa.....	35,601	2	105,684	—	—	2	101,862	—	—
Quebec.....	28,170	1	5,105	—	—	1	4,939	—	—
Windsor.....	26,126	1	62,739	—	—	1	64,441	—	—
Edmonton.....	24,700	2	61,796	1	2,000	2	70,550	1	2,000
Calgary.....	25,387	2	64,218	—	—	2	67,009	—	—
London.....	21,050	1	65,506	—	—	1	69,062	—	—
Halifax.....	15,089	2	120,167	—	—	2	115,706	—	—
Verdun.....	16,184	—	—	2	25,706 <sup>4</sup>	—	—	2	27,575 <sup>4</sup>
Regina.....	15,390	1	39,604	1	2,016	1	40,108	1	2,487
Saint John.....	12,241	1	44,146	1	5,250	1	45,005	1	5,300
Victoria.....	13,236	2	41,425	1	25,529 <sup>4</sup>	2	42,492	1	26,951 <sup>5</sup>
Saskatoon.....	11,461	1	29,588	—	—	1	30,374	—	—
Three Rivers.....	7,688	—	—	1	3,810	—	—	1	3,810
Sherbrooke.....	7,770	1	9,279	1	3,000	1	9,166	1	3,329
Kitchener.....	9,215	1	19,762	—	—	1	19,990	—	—
Hull.....	6,427	—	—	—	—	—	—	—	—
Sudbury.....	7,685	1	13,275	—	—	1	13,975	—	—
Brantford.....	8,543	1	15,716	—	—	1	17,289	—	—
Fort William.....	6,763	1	11,689	—	—	1	11,959	—	—
St. Catharines.....	8,008	1	16,216	—	—	1	16,918	—	—
Kingston.....	7,226	1	16,706	—	—	1	17,271	—	—
Oshawa.....	6,837	1	8,061	1	3,500	1	8,211	1	3,500
Timmins.....	6,691	1	11,605	1	2,897	1	11,659	1	3,089
Sydney.....	5,703	1	22,483	—	—	1	23,807	—	—
Sault Ste. Marie.....	6,307	1	8,948	—	—	1	9,736	—	—
Peterborough.....	6,364	1	13,498	1	4,924	1	14,234	1	6,002
Glace Bay.....	4,828	1	—	—	—	1	4,280	—	—
Port Arthur.....	5,920	1	10,241	—	—	1	10,356	—	—
Guelph.....	5,939	1	11,091	—	—	1	11,637	—	—
Moncton.....	5,121	1	17,410	—	—	1	18,135	—	—
New Westminster.....	5,806	1	6,535	2	8,009	1	8,635	2	5,279
Moose Jaw.....	5,424	1	7,701	—	—	1	7,873	—	—
Niagara Falls.....	5,235	1	9,521	—	—	1	9,969	—	—
Shawinigan Falls.....	3,820	—	—	2	4,700 <sup>4</sup>	—	—	2	4,727 <sup>4</sup>
Lachine.....	4,258	—	—	1	7,025 <sup>6</sup>	—	—	—	—

<sup>1</sup> Includes 1 national weekend and 1 Saturday edition.  
<sup>2</sup> Includes 1 national weekend.  
<sup>3</sup> Bilingual.

<sup>4</sup> Includes 2 national weekend and 1 Saturday edition.  
<sup>5</sup> Includes 1 bilingual.  
<sup>6</sup> Saturday

#### 4.—Estimated Numbers and Circulations of Reporting Daily and Weekly French-Language Newspapers in Urban Centres of 20,000 Population or Over, 1947 and 1948

NOTE.—Figures for 1945 and 1946 are given at p. 754 of the 1947 Year Book.

Urban Centre	Census 1941	1947				1948			
	House- holds	Daily		Weekly		Daily		Weekly	
	No.	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation
Montreal.....	203,685	5	315,234	8	890,521 <sup>1</sup>	5	320,375	13	995,580 <sup>1</sup>
Winnipeg.....	59,607	—	...	1	8,470	—	...	1	8,833
Ottawa.....	35,601	1	23,287	—	...	1	24,605	—	...
Quebec.....	28,170	2	197,264	1	17,500	2	197,649	1	17,500
Edmonton.....	24,700	—	...	1	3,673	—	...	1	3,673
Three Rivers.....	7,688	1	18,245	2	6,190	1	20,274	2	6,335
Sherbrooke.....	7,770	1	15,195	1	27,737	1	16,808	1	27,737
Hull.....	6,427	—	...	2	7,106	—	...	2	7,106
Sudbury.....	7,685	—	...	1	1,975	—	...	1	1,975
Moncton.....	5,121	—	...	1	8,294	—	...	1	8,294
Shawinigan Falls.....	3,820	—	...	5	16,427	—	...	5	16,393

<sup>1</sup> Includes 2 Saturday and 1 Sunday edition.

#### 5.—Controlled Circulation<sup>1</sup> of English-Language<sup>2</sup> Urban Weeklies, 1946-48

NOTE.—Figures for 1938-45 are given at p. 791 of the 1948-49 Year Book.

Province and City	1946		1947		1948	
	No.	Circulation	No.	Circulation	No.	Circulation
<b>Quebec—</b>						
Montreal.....	1	16,000	1	16,000	1	18,000
Westmount.....	1	7,500	—	...	—	...
Others.....	2	15,000	2	15,000	—	...
<b>Ontario—</b>						
Hamilton.....	1	28,500	1	28,500	2	46,650
London.....	1	20,000	1	25,000	1	25,000
Toronto.....	13	97,650	14	101,150	16	101,350
Others.....	11	54,275	10	33,925	8	18,225
<b>Manitoba—</b>						
Winnipeg.....	3	58,710	3	59,060	3	59,060
<b>Saskatchewan—</b>						
Moose Jaw.....	1	6,015	1	6,200	—	...
<b>Alberta—</b>						
Edmonton.....	2	10,354	1	7,854	1	7,854
<b>British Columbia—</b>						
Vancouver.....	5	27,450	5	26,700	5	26,700
Others.....	2	4,450	2	4,450	1	1,500

<sup>1</sup> Circulation not reported in all cases. newspapers was 1 with 15,000 in 1946-48.

<sup>2</sup> In addition controlled circulation of French-language

### 6.—Estimated Numbers and Circulations of Weekly Foreign-Language Newspapers, 1946-48

NOTE.—Figures for the years 1938-45 are given at p. 792 of the 1948-49 Year Book.

Language	1946		1947		1948	
	No.	Circulation	No.	Circulation	No.	Circulation
Bulgarian.....	1	1,000	1	1,000	1	1,000
Finnish.....	2	7,600	2	7,900	2	8,000
German.....	7	32,635	6	36,070	6	37,874
Hungarian.....	1	3,450	1	3,450	1	3,450
Icelandic.....	3	13,425	3	13,425	3	13,425
Japanese.....	—	...	—	...	1	3,170
Lithuanian.....	1	—	1	—	1	—
Norwegian.....	1	6,422	1	6,422	1	4,820
Polish.....	3	15,091	3	15,566	3	16,425
Slovak.....	1	2,500	1	2,500	1	2,500
Swedish.....	3	13,099	3	13,099	4	11,371
Ukrainian.....	6	64,937	7	65,791	7	70,401
Yiddish.....	3	28,262	3	28,262	3	28,262
Yugoslav.....	1	2,500	1	3,445	1	3,445

### 7.—Estimated Numbers and Circulations of Reporting Magazines and Related Publications, by Type, 1946-48

NOTE.—Figures for the years 1938-45 are given at p. 793 of the 1948-49 Year Book.

Type	1946			1947			1948		
	Listed	Reporting		Listed	Reporting		Listed	Reporting	
	No.	No.	Circulation	No.	No.	Circulation	No.	No.	Circulation
Agricultural and rural....	44	33	1,847,286	46	39	2,009,920	46	41	2,090,584
Arts, crafts and professions	16	11	76,351	18	14	122,615	10	9	137,428
Construction.....	20	19	101,091	21	19	106,510	20	19	108,753
Educational.....	31	25	200,336	37	31	251,074	32	27	227,034
Finance and insurance....	18	6	56,101	16	6	61,343	15	4	45,717
Government and govern- ment services.....	18	10	170,459	17	10	173,663	20	15	192,999
Home, social and welfare...	47	39	2,585,665	47	41	2,912,073	47	40	2,654,892
Labour.....	22	16	305,613	22	16	342,343	20	12	293,681
Pharmaceutical and med- ical.....	25	19	67,229	25	21	85,375	25	20	71,661
Religious.....	39	38	684,459	40	36	693,639	37	37	679,478
Services and directories...	32	17	71,905	47	32	154,554	49	40	191,471
Sports and entertainment...	23	14	176,422	29	19	237,393	31	25	275,298
Trade, industry and other related publications....	140	110	471,194	147	131	590,822	148	132	538,010
Transportation and travel...	26	24	173,309	30	25	149,757	28	25	159,723
Miscellaneous.....	20	19	251,186	23	20	200,934	51	49	639,949
<b>Totals.....</b>	<b>521</b>	<b>400</b>	<b>7,238,606</b>	<b>565</b>	<b>460</b>	<b>8,092,015</b>	<b>579</b>	<b>495</b>	<b>8,306,678</b>



# CHAPTER XXI.—DOMESTIC TRADE

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

## PART I.—THE MOVEMENT AND MARKETING OF COMMODITIES

The different directions that economic development has taken across Canada and the diverse resources of various parts of the country have led to a vast exchange of products. The task of providing goods and services where they are required for consumption or use by the widely scattered population of 13,636,000 (Sept. 1, 1949, estimate) accounts for a greater expenditure of economic effort than that required for the prosecution of the country's great volume of foreign trade, high though Canada ranks among the countries of the world in this field.

Domestic trade is broad and complicated: it encompasses all values added to commodities traded in, provincially and interprovincially, by agencies and services connected with the storage, distribution and sale of goods, such as railways, steamships, warehouses, wholesale and retail stores, financial institutions, etc. Taken in a wide sense it embraces various professional and personal services including those directed to the amusement of the people, such as theatres, sports, etc. However, not all phases of this broad field are covered here though, wherever possible, cross references are given to related material occurring in other Chapters. The arrangement of material in a volume such as the Year Book is governed by the necessity of interpretation from various angles. The Index will be found useful in this respect.

## Section 1.—The Grain Trade

### Subsection 1.—Governmental Agencies Regulating or Co-operating with the Grain Trade

The agencies exercising control of the grain trade in Canada are: the Board of Grain Commissioners, which administers the provisions of the Canada Grain Act, 1930; and the Canadian Wheat Board, which operates under the Canadian Wheat Board Act, 1935. An account of the organization and functions of the Board of Grain Commissioners appears at pp. 481-482 of the 1941 Year Book. An article on the operations of the Canadian Wheat Board is included in the 1939 Year Book. This material is brought up to date in the 1947 and 1948-49 editions.

### Subsection 2.—Distribution, Storage and Inspection of Field Crops\*

In the latest two years total disposition of wheat declined from 503,100,000 bu. in 1945-46 to 401,200,000 bu. in 1946-47 and to 351,000,000 bu. in 1947-48. Reductions in amounts fed to live stock, lower domestic flour consumption and decreases in quantities used in industry are the chief reasons for the decline in domestic use which dropped from 179,200,000 bu. in 1943-44 to 156,000,000 bu. in 1947-48. Exports have also fallen off markedly from 340,000,000 bu. in 1945-46 to 195,000,000 bu. in 1947-48.

Carryover stocks which were high during the war years declined to the low level of 77,700,000 bu. at July 31, 1949.

### 1.—Production, Imports, Exports and Domestic Use of Wheat and Wheat Flour, Crop Years Ended July 31, 1943-48

(Millions of Bushels)

Item	1942-43	1943-44	1944-45	1945-46	1946-47	1947-48
Carryover Aug. 1.....	423.8	594.6	356.5	258.1	73.6	86.1
Production.....	556.6	284.5	416.6	318.5	413.7	341.8
Imports.....	—	0.4	0.4	0.1	1	0.8
<b>Totals, Supply.....</b>	<b>980.4</b>	<b>879.5</b>	<b>773.5</b>	<b>576.7</b>	<b>487.3</b>	<b>428.7</b>
Exports.....	214.7	343.8	342.9	340.1	239.4	195.0
Domestic use.....	171.1	179.2	172.5	163.0	161.8	156.0
<b>Totals, Disposition.....</b>	<b>385.8</b>	<b>523.0</b>	<b>515.4</b>	<b>503.1</b>	<b>401.2</b>	<b>351.0</b>
Carryover July 31.....	594.6	356.5	258.1	73.6	86.1	77.7

<sup>1</sup> Less than 100,000 bu.

The domestic and export trade in Canada's five principal grain crops are shown in some detail in Table 2. Exports of wheat, oats and barley were substantially lower than in 1946-47, but rye and flaxseed showed increases. Feed for live stock and poultry each year accounts for large quantities of grain, about 450,000,000 bu. being used for this purpose in 1947-48.

\* Revised by the Agriculture Division, Dominion Bureau of Statistics.

## 2.—Distribution of Canadian Grain Crops, Crop Year Ended July 31, 1948

(Millions of Bushels)

Item	Wheat	Oats	Barley	Rye	Flaxseed
Carryover Aug. 1, 1947.....	86.1	69.5	28.8	0.7	0.8
Production in 1947.....	341.8	278.7	141.4	13.2	12.3
Imports <sup>1</sup> .....	0.8	1	1	1.5	1
<b>Totals, Supply.....</b>	<b>428.7</b>	<b>348.2</b>	<b>170.2</b>	<b>15.4</b>	<b>13.1</b>
Exports in terms of grain <sup>2</sup> .....	195.0	10.2	3.6	10.2	1.8
Domestic Use—					
Human consumption.....	48.6	4.1	0.3	0.1	—
Animal feed and waste.....	73.6	259.0	112.2	1.4	1.0
Seed requirements.....	33.0	26.9	10.8	2.3	1.2
Industrial use.....	0.1	—	11.8	0.5	5.7
Loss in handling and drying.....	0.7	0.1	0.1	—	—
<b>Totals, Disposition.....</b>	<b>351.0</b>	<b>300.3</b>	<b>138.8</b>	<b>14.5</b>	<b>9.7</b>
Carryover July 31, 1948.....	77.7	47.9	31.4	0.9	3.4

<sup>1</sup> Less than 100,000 bu.<sup>2</sup> Export and import data for wheat, oats, barley and rye, respectively, include flour in terms of wheat, rolled oats in terms of oats, malt in terms of barley and rye-flour in terms of rye.

**The 1948-49 Grain-Marketing Policy.**—World food production and supplies in 1948-49 were materially higher than in the previous year, and the grain export surplus was the largest for some years. With grain production in 1948 exceeding or approaching pre-war levels in nearly all regions, the stringent post-war shortage was alleviated. As a result bread rationing was discontinued in most countries and price declines occurred in all grains.

Canada's 1948 wheat crop amounted to 393,000,000 bu.; exports of wheat and flour in terms of wheat in the crop year ended July 31, 1949, were 231,600,000 bu.; and carryover stocks at July 31 were 98,700,000 bu.

**Wheat.**—The Wheat Board continued in the year 1948-49 to be the sole purchaser of wheat produced in the Western Division of Canada. An initial payment of \$1.75 per bu., basis No. 1 Northern in store Fort William, was paid to producers and participation certificates were issued. Under the provisions of the Canada-United Kingdom Wheat Agreement, Canada supplied 140,000,000 bu. of wheat and flour in the crop year 1948-49.

The price of wheat to the United Kingdom was \$2 per bu., basis No. 1 Northern in store Fort William plus 5 cents per bu. carrying charge. During the crop year the domestic price was increased to \$2 per bu., plus the 5 cents carrying charge. The weighted average price of sales of wheat and wheat for flour to countries other than the United Kingdom during the crop year was \$2.23 per bu.

An international wheat agreement was completed in 1949 and by July 1, 22 countries had signed. The date of commencement of the agreement was Aug. 1, 1949, but an extension to Oct. 31 was granted to allow other countries to sign. The original agreement called for the purchase of 456,000,000 bu. but the attainment of this figure depends upon all the importing countries involved signing the pact. The agreement is to remain in force for four years. Maximum and minimum prices are fixed for each year: \$1.50 to \$1.80 in 1949-50; \$1.40 to \$1.80 in 1950-51; \$1.30 to \$1.80 in 1951-52 and \$1.20 to \$1.80 in 1952-53. These prices are fixed in Canadian currency per bu., and the parity of the Canadian dollar ruling on Mar. 15, 1949, for No. 1



Northern in bulk in store Fort William. Canada's share of the guaranteed exports based on 456,000,000 bu. guaranteed imports, amounts to 203,000,000 bu. This figure may be reduced if any import countries do not ratify the agreement.

*Coarse Grains.*—Support prices for oats and barley were continued by the Canadian Wheat Board during the crop year 1948-49. On July 9, 1948, the Government announced the payment of 5 cents per bu. on oats and 11 cents per bu. on barley delivered and sold by western producers between Aug. 1 and Oct. 21, 1947 when price ceilings were removed from these grains. The total distribution was \$5,111,529. Adjustment payments were also made by elevator companies.

It was announced on Mar. 7, 1949, that the Canadian Wheat Board would distribute \$8,672,233 to western producers who delivered oats and barley in 1947-48. This money represented the surplus accumulated in the equalization funds and payment amounted to 5.881 cents per bu. for oats and 6.789 cents per bu. for barley.

**Licensed Grain Elevator Capacity.**—At Dec. 1, 1948, total licensed grain elevator capacity in Canada stood at 486,000,000 bu., compared with 482,000,000 bu. in 1947. Western country elevators with their annexes made up over one-half of this total with 265,000,000 bu. capacity. Capacity for storing grain at the Lakehead was 80,000,000 bu., and West Coast, St. Lawrence and Maritime ports had facilities for holding 47,000,000 bu. ready for overseas movement. The detailed table giving grain elevator capacities formerly introduced here will be found in Section 3, Subsection 1, of this Chapter, at p. 845.

### 3.—Quantities of Grain Inspected, Crop Years Ended July, 31, 1947 and 1948

Grain	1947			1948		
	Western Division	Eastern Division	Total	Western Division	Eastern Division	Total
	bu.	bu.	bu.	bu.	bu.	bu.
Spring wheat.....	308,665,822	—	308,665,822	233,650,559	—	233,650,559
Winter wheat.....	3,020,168	976,793	3,996,961	1,630,248	2,122,298	3,752,546
Totals, Wheat.....	311,685,990	976,793	312,662,783	235,280,807	2,122,298	237,403,105
Oats.....	90,466,390	61,940	90,528,330	66,073,262	—	66,073,262
Barley.....	55,567,860	88,356	55,656,216	57,311,706	5,260	57,316,966
Rye.....	5,494,760	70,122	5,564,882	9,623,063	1,522,271	11,145,334
Flaxseed.....	4,371,310	37,357	4,408,667	9,419,921	84,230	9,504,151
Corn.....	42,000	4,563,359	4,605,359	76,590	3,132,870	3,209,460
Buckwheat.....	1,250	9,040	10,290	—	61,647	61,647
Mixed grain.....	1,653,075	—	1,653,075	1,281,600	3,000	1,284,600
Totals, Grain.....	469,282,635	5,806,967	475,089,602	379,066,949	6,931,576	385,998,525

### 4.—Lake Shipments of Grain from Fort William and Port Arthur, Crop Years Ended July 31, 1947 and 1948

Grain	1947			1948		
	To Canadian Ports	To U.S. Ports	Total Shipments	To Canadian Ports	To U.S. Ports	Total Shipments
	bu.	bu.	bu.	bu.	bu.	bu.
Wheat.....	164,328,848	11,477,913	175,806,761	118,960,792	15,481,860	134,545,364 <sup>1</sup>
Oats.....	47,923,326	2,388,009	50,311,335	33,094,058	1,340,462	34,434,520
Barley.....	24,860,365	6,361,608	31,221,973	26,532,610	1,780,297	28,312,907
Rye.....	2,530,242	2,245,983	4,776,225	8,488,938	60,095	8,549,033
Flaxseed.....	1,339,983	—	1,339,983	5,426,109	507,237	5,933,346
Totals, Grain.. bu.	240,982,764	22,473,513	263,456,277	192,502,507	19,169,951	211,775,170
Screenings..... ton	19,439	97,128	116,567	15,507	66,263	81,770

<sup>1</sup> Includes 102,712 bu. wrecked en route to Canadian ports.

**5.—Canadian Grain Handled at Eastern Elevators, Crop Years Ended July 31, 1939-48**

NOTE.—Figures for the crop years 1922-29 are given at p. 626 of the 1931 Year Book; for 1930-36 at p. 512 of the 1943-44 edition; and for 1937-38 at p. 816 of the 1947 edition.

Item and Crop Year	Wheat	Oats	Barley	Rye	Flaxseed	Total Grain
	bu.	bu.	bu.	bu.	bu.	bu.
<b>Receipts—</b>						
1939.....	224,541,409	16,024,099	24,845,946	891,751	547,082	266,850,287
1940.....	240,412,659	15,204,169	14,340,317	2,163,482	666,436	272,787,063
1941.....	294,736,497	7,958,781	8,937,925	906,154	2,206,498	314,745,855
1942.....	282,400,393	5,468,716	7,240,814	785,929	1,912,528	297,808,380
1943.....	219,652,250	9,785,401	5,278,318	458,978	1,244,032	236,418,979
1944.....	254,389,628	18,838,600	20,806,305	739,090	752,512	295,526,125
1945.....	365,444,773	44,726,587	27,047,192	2,632,303	1,869,128	441,719,983
1946.....	318,075,743	70,013,103	30,789,084	1,938,882	3,669,449	424,486,261
1947.....	255,286,775	63,764,776	22,719,533	5,663,823	1,302,023	348,736,930
1948.....	196,718,272	38,842,320	27,560,650	17,543,967	6,234,436	286,899,645
<b>Shipments—</b>						
1939.....	188,113,064	13,763,219	24,626,489	1,045,658	547,083	228,095,513
1940.....	221,558,877	17,360,438	14,784,608	1,927,316	613,212	256,244,451
1941.....	289,226,546	8,319,274	9,358,776	1,048,997	2,212,699	310,166,292
1942.....	282,022,653	5,377,665	5,658,168	777,623	1,873,895	295,710,004
1943.....	241,277,883	9,214,194	5,348,513	556,151	1,223,582	257,620,323
1944.....	248,581,173	17,221,335	17,164,441	829,960	628,979	284,425,888
1945.....	385,086,106	39,039,333	30,943,479	2,315,638	1,369,573	458,754,129
1946.....	338,462,187	70,460,215	28,472,958	2,432,487	3,727,565	443,555,412
1947.....	251,033,577	68,714,833	24,378,351	5,612,148	1,717,100	351,456,009
1948.....	206,061,315	39,805,551	26,847,608	17,647,367	5,551,138	295,913,629

**Wheat Flour.**—The steadily rising flour production in Canadian mills over the last few years came to a halt in 1947-48 with an output of only 24,200,000 bbl., a decline of 4,400,000 bbl. from the all-time high of the previous crop year. Wheat milled for the production of this flour amounted to 109,800,000 bu., a decrease of 18,000,000 bu. from the record year of 1946-47. Exports of wheat flour (based on customs returns) for the crop year under survey amounted to 13,700,000 bbl., equivalent to 57 p.c. of the same year's production but a decrease from the 1946-47 export by 4,000,000 bbl.

Milling capacity for the last crop year averaged 81 p.c., a decrease of 20 p.c. from that of the previous year.

**Section 2.—Live-Stock Marketings\***

Commercial marketing of cattle fell off considerably in 1947. Part of the decrease was due to reduced deliveries to inspected plants with a large-scale packing-house workers' strike in September and October of that year. A new high level of cattle marketings was reached in 1948. A consistently high level of prices and the removal of restrictions on the export of slaughter and feeding cattle and dressed meats to the United States (effective Aug. 16, 1948) contributed to a record movement of cattle off farms. Hog marketings, about 300,000 higher in 1947 than in 1946, showed little change through 1948. Commercial marketings of sheep and lambs declined sharply during each of the last three years and the total primary movement during 1948 was only about two-thirds of that in 1945.

\* For more detailed information on this subject, see "Live Stock and Animal Products Statistics", published annually by the Dominion Bureau of Statistics; and the "Annual Market Review", published by the Live Stock Branch of the Federal Department of Agriculture. Statistics of live stock and poultry are given at pp. 429-435 of this volume.

### 6.—Live Stock Marketed at Stockyards, Packing Plants and Direct for Export, by Provinces, 1947-48

Live Stock	Maritime Provinces	Quebec	Ontario	Mani- toba	Saskat- chewan	Alberta	British Columbia	Total
	No.	No.	No.	No.	No.	No.	No.	No.
<b>1947</b>								
<b>Cattle—</b>								
Totals to stockyards....	480	31,311	284,438	105,632	278,988	250,108	8,051	959,008
Direct to packers.....	8,279	19,174	155,950	58,913	90,846	172,169	38,117	543,448
Direct for export.....	6,795	14,494	38,621	270	350	877	550	61,957
<b>Totals, Cattle.....</b>	<b>15,554</b>	<b>64,979</b>	<b>479,009</b>	<b>164,815</b>	<b>370,184</b>	<b>423,154</b>	<b>46,718</b>	<b>1,564,413</b>
<b>Calves—</b>								
Totals to stockyards....	8,330	91,437	139,815	37,858	65,896	34,875	783	378,994
Direct to packers.....	16,298	107,265	80,338	45,548	17,474	52,216	2,335	321,474
Direct for export.....	1,251	160	2,232	5	103	94	83	3,928
<b>Totals, Calves.....</b>	<b>25,879</b>	<b>198,862</b>	<b>222,385</b>	<b>83,411</b>	<b>83,473</b>	<b>87,185</b>	<b>3,201</b>	<b>704,396</b>
<b>Hogs—</b>								
Totals to stockyards....	257	140,496	253,431	46,323	67,238	174,666	249	682,660
Direct to packers.....	99,128	559,072	1,837,898	262,938	367,611	930,556	16,108	4,073,311
Direct for export.....	6,873	29	1,987	10	3	—	—	8,902
<b>Totals, Hogs.....</b>	<b>106,258</b>	<b>699,597</b>	<b>2,093,316</b>	<b>309,271</b>	<b>434,852</b>	<b>1,105,222</b>	<b>16,357</b>	<b>4,764,873</b>
<b>Sheep and Lambs—</b>								
Totals to stockyards....	1,508	79,696	105,799	22,203	71,394	84,952	2,277	367,829
Direct to packers.....	32,894	99,359	102,644	55,180	29,232	202,560	23,498	545,367
Direct for export.....	338	15	2,311	182	114	1,671	285	4,916
<b>Totals, Sheep and Lambs.....</b>	<b>34,740</b>	<b>179,070</b>	<b>210,754</b>	<b>77,565</b>	<b>100,740</b>	<b>289,183</b>	<b>26,060</b>	<b>918,112</b>
Store cattle purchased.....	799	1,077	87,115	13,454	11,707	60,146	1,785	176,083
<b>1948</b>								
<b>Cattle—</b>								
Totals to stockyards....	2,340	53,349	337,705	138,222	358,989	321,162	12,694	1,224,461
Direct to packers.....	12,357	46,436	169,694	71,296	85,759	177,386	41,024	603,952
Direct for export.....	6,400	35,258	122,732	5,064	19,788	33,440	5,900	228,582
<b>Totals, Cattle.....</b>	<b>21,097</b>	<b>135,043</b>	<b>630,131</b>	<b>214,582</b>	<b>464,536</b>	<b>531,988</b>	<b>59,618</b>	<b>2,056,995</b>
<b>Calves—</b>								
Totals to stockyards....	12,317	95,709	140,116	41,410	84,887	47,837	1,504	423,780
Direct to packers.....	13,063	148,236	95,570	50,031	21,197	68,954	4,745	401,796
Direct for export.....	1,358	606	7,726	363	2,206	2,449	637	15,345
<b>Totals, Calves.....</b>	<b>26,738</b>	<b>244,551</b>	<b>243,412</b>	<b>91,804</b>	<b>108,290</b>	<b>119,240</b>	<b>6,886</b>	<b>840,921</b>
<b>Hogs—</b>								
Totals to stockyards....	4,210	198,453	198,918	27,205	33,739	161,553	1,331	625,409
Direct to packers.....	166,161	652,371	1,707,204	244,471	322,818	1,003,900	45,526	4,142,451
Direct for export.....	5,133	88	1,227	1	19	3	114	6,585
<b>Totals, Hogs.....</b>	<b>175,504</b>	<b>850,912</b>	<b>1,907,349</b>	<b>271,677</b>	<b>356,576</b>	<b>1,165,456</b>	<b>46,971</b>	<b>4,774,445</b>
<b>Sheep and Lambs—</b>								
Totals to stockyards....	3,214	71,361	97,243	17,201	47,378	49,117	3,798	289,312
Direct to packers.....	35,791	112,351	105,838	37,184	20,238	143,479	17,520	472,401
Direct for export.....	318	2	4,057	182	10,501	23,347	424	38,831
<b>Totals, Sheep and Lambs.....</b>	<b>39,323</b>	<b>183,714</b>	<b>207,138</b>	<b>54,567</b>	<b>78,117</b>	<b>215,943</b>	<b>21,742</b>	<b>800,544</b>
Store cattle purchased.....	131	1,000	97,225	8,253	10,178	71,187	1,670	189,644



## 7.—Grades of Live Stock Marketed at Stockyards and Packing Plants, 1944-48

Live Stock	1944	1945	1946	1947	1948
	No.	No.	No.	No.	No.
<b>Cattle—</b>					
Steers up to 1,050 lb.—					
Choice.....	25,263	32,871	38,628	41,807	33,869
Good.....	96,092	116,206	121,993	96,981	89,915
Medium.....	116,780	123,797	158,124	116,110	123,353
Common.....	81,954	125,821	93,502	66,235	81,030
Steers over 1,050 lb.—					
Choice.....	61,865	68,970	75,379	78,978	72,816
Good.....	85,750	94,285	83,041	65,001	64,838
Medium.....	53,011	50,322	32,508	30,112	31,968
Common.....	15,332	10,888	5,402	4,173	7,120
Heifers—					
Choice.....	14,934	20,655	32,271	29,496	23,635
Good.....	66,874	96,255	116,834	82,250	85,002
Medium.....	81,924	115,242	103,622	92,746	114,580
Common.....	59,125	93,407	70,048	60,009	80,256
Fed Calves—					
Choice.....	18,510	25,813	23,809	18,107	25,791
Good.....	34,238	42,276	43,810	29,071	31,219
Medium.....	32,177	44,908	57,464	37,504	43,936
Cows—					
Good.....	110,936	157,082	161,250	122,639	155,947
Medium.....	99,932	151,046	141,510	108,560	143,700
Common.....	81,480	118,577	106,182	83,837	120,764
Canners and cutters.....	120,199	165,464	118,953	108,673	159,462
Bulls—					
Good.....	22,639	34,910	35,911	24,465	31,951
Common.....	50,194	56,524	47,052	41,918	64,639
Stocker and Feeder Steers—					
Good.....	52,221	60,726	64,854	56,441	92,454
Common.....	58,115	59,824	46,772	53,781	80,240
Stock Cows and Heifers—					
Good.....	11,528	12,450	12,261	12,384	26,603
Common.....	12,017	14,343	10,769	8,704	16,589
Milkers and Springers.....	7,527	8,486	8,310	8,417	8,028
Unclassified.....	14,488	20,259	16,721	24,057	18,708
<b>Totals, Cattle.....</b>	<b>1,485,105</b>	<b>1,961,407</b>	<b>1,826,980</b>	<b>1,502,456</b>	<b>1,828,413</b>
<b>Calves—</b>					
Veal—					
Good and choice.....	180,877	233,741	226,423	195,510	245,127
Common and medium.....	445,295	529,265	510,612	453,228	506,767
Grass.....	73,032	64,007	55,634	51,730	73,682
<b>Totals, Calves.....</b>	<b>699,204</b>	<b>827,013</b>	<b>792,669</b>	<b>700,468</b>	<b>825,576</b>
<b>Hog Carcasses—</b>					
"A".....	2,506,115	1,882,513	1,447,117	1,505,501	1,516,728
"B".....	4,799,573	3,076,057	2,317,687	2,369,138	2,501,780
"C".....	594,824	299,754	206,854	211,023	215,519
"D".....	37,815	21,180	15,872	21,310	22,049
"E".....	81,011	58,312	46,190	50,781	51,043
Heavies.....	195,865	107,231	84,741	103,089	92,666
Extra heavies.....	112,148	85,326	70,171	111,577	80,435
Lights.....	93,657	61,205	44,724	84,392	83,830
Sows.....	442,170	269,495	227,380	299,160	203,810
<b>Totals, Hog Carcasses.....</b>	<b>8,863,178</b>	<b>5,861,073</b>	<b>4,460,736</b>	<b>4,755,971</b>	<b>4,767,860</b>

**7.—Grades of Live Stock Marketed at Stockyards and Packing Plants,  
1944-48—concluded**

Live Stock	1944	1945	1946	1947	1948
	No.	No.	No.	No.	No.
<b>Lambs and Sheep Graded Alive—</b>					
Lambs—					
Good handyweights.....	596,275	679,080	671,848	507,450	407,926
Good heavies.....	15,687	19,209	31,372	18,207	24,119
Common, all weights.....	207,036	193,499	135,807	118,431	101,409
Bucks.....	63,309	54,123	51,825	49,031	51,966
Sheep—					
Good heavies.....	19,801	35,153	39,316	38,571	25,941
Good handyweights.....	42,685	116,562	125,587	94,339	79,312
Common.....	40,365	57,544	59,821	51,026	41,011
Unclassified.....	5,240	15,546	11,125	14,492	10,511
<b>Totals, Lambs and Sheep.....</b>	<b>990,398</b>	<b>1,170,716</b>	<b>1,126,701</b>	<b>891,547</b>	<b>742,195</b>
<b>Lamb and Sheep Carcasses—<sup>1</sup></b>					
Lambs—					
“A”.....	4,650	10,884	16,276	9,371	8,948
“B”.....	2,880	5,222	7,295	5,394	4,589
“C”.....	1,836	2,021	2,614	2,628	2,021
“D”.....	425	355	507	572	701
“E”.....	—	—	—	—	206
Sheep.....	1,471	2,044	5,046	3,684	3,053
<b>Totals, Lamb and Sheep Carcasses.....</b>	<b>11,262</b>	<b>20,526</b>	<b>31,738</b>	<b>21,649</b>	<b>19,518</b>

<sup>1</sup> First graded as such in 1944.

### Section 3.—Warehousing and Cold Storage\*

Among the means by which the utilities of ‘place’, ‘time’ and ‘possession’ are added to the products of industry, warehousing ranks high. Its importance has been emphasized in modern times because of the introduction of cold-storage methods to the conservation of perishable foods.

The great difficulty in presenting warehousing statistics lies in the fact that it is not an easy matter to define clearly what are to be regarded as stocks in storage. In these days of complicated business relationships and especially since the rise of the department store and chain store as characteristic institutions in the retail merchandising field, it often happens that warehousing is carried on in close relationship to merchandising. However, if the strict economic definition of warehousing is adopted then this term should be restricted to those facilities that add the utilities of ‘time’ to the ‘form’ utilities that are the product of the extraction and manufacturing industries. Since the warehouses established in close connection with retail trade are more often than not convenient places for the temporary storage of goods in process of transfer from the manufacturer or wholesaler to the consumer, then they are not perhaps, in the strict economic sense, services which add the utility of ‘time’ to commodities already worked up into ‘form’. At least, since some clear line must be drawn and because separate statistics of this branch of storage are not available, it is considered practicable to restrict the definition of warehousing as here used.

This Section as it appears in the current Year Book does not attempt to go much further than to draw these statistics together under one general heading. The purpose is to develop the statistics of warehousing and gradually build up an

\* The material in this Section was supplied by various Divisions of the Departments of Agriculture, Fisheries, Mines and Resources, National Revenue and of the Dominion Bureau of Statistics.

improved and more co-ordinated series of data. Subsection 1 presents statistics of the licensed storage of grain. Subsection 2 deals with cold-storage facilities without which perishable foods such as meats, dairy products, fish and fruits could not be exchanged or distributed on a wide scale; it includes also figures of stocks of food on hand. Subsection 3 deals with the storage of petroleum and its products and Subsection 4 with public warehouses and customs warehouses. The facilities that specialize in the storage of tobacco and alcoholic liquors are analysed in Subsection 5. These bonded warehouses, as they are called, are under the strict surveillance of Federal Government excise officers who supervise all movements into and from such places of storage.

### Subsection 1.—Licensed Grain Storage

At Dec. 1, 1948, total licensed grain storage in Canada stood at 486,000,000 bu., an increase of 4,000,000 bu. from the level of Dec. 1, 1947. Since 1943, licensed grain storage capacity has dropped off considerably, largely as a result of the dismantling of temporary storage erected to handle the huge stocks of grain accumulated in the early years of the War. At Dec. 1, 1943, licensed grain storage capacity had reached an all-time high of 603,000,000 bu.

With Canadian grains in great demand both on the domestic and export markets the percentage of capacity occupied is quite low. Even in November, which is normally a peak storage month, the capacity occupied in both 1947 and 1948 stood at only 40 p.c. On Dec. 3, 1942, when both stocks in store and storage capacity were at near record levels, the licensed capacity occupied was just under 80 p.c.

At July 31, 1948, the end of the Canadian crop year, only 11 p.c. of licensed capacity was occupied. With this situation existing at the beginning of the next crop year and taking into consideration the moderately large crop harvested in 1948, ample storage space was generally available in all positions during the 1948-49 crop year.

Additional information on the distribution, storage and inspection of the principal field crops will be found in Section 1, Subsection 2 of this Chapter pp. 838-841.

### 8.—Licensed Grain Storage Capacity and Grain in Store, 1947-48 and 1948-49

NOTE.—These figures are lower than those shown in Table 14, p. 428, for the reason that they do not include stocks in transit or in eastern mills.

Storage	Capacity Dec. 1, 1947	Grain in store July 31, 1947	Capacity Occupied	Grain in Store Nov. 27, 1947	Capacity Occupied	Grain in Store Mar. 31, 1948	Capacity Occupied
1947-48	'000,000 bu.	'000 bu.	p.c.	'000 bu.	p.c.	'000 bu.	p.c.
Western country elevators....	265	24,813	9.4	114,234	43.1	51,218	19.3
Interior, private and mill.....	20	8,496	42.5	8,325	41.6	6,868	34.3
Interior terminals.....	21	633	3.0	2,366	11.3	3,512	16.7
Pacific coast.....	17	4,831	28.4	3,740	22.0	7,616	44.8
Fort William—Port Arthur....	76	9,766	12.9	28,134	37.0	39,491	52.0
Bay ports, Goderich and Samia.....	34	12,044	35.4	18,439	54.2	10,724	31.5
Lower lake ports.....	19	4,964	26.1	8,830	46.5	5,487	28.9
St. Lawrence ports.....	25	2,318	9.3	3,889	15.6	2,306	9.2
Maritime ports.....	5	54	1.1	797	15.9	3,513	70.2
<b>Totals.....</b>	<b>482</b>	<b>67,919</b>	<b>14.1</b>	<b>188,754</b>	<b>39.2</b>	<b>130,735</b>	<b>27.1</b>



**8.—Licensed Grain Storage Capacity and Grain in Store, 1947-48 and 1948-49**  
—concluded

Storage	Capacity Dec. 1, 1948	Grain in Store July 29, 1948	Capacity Occupied	Grain in Store Dec. 2, 1948	Capacity Occupied	Grain in Store Mar. 31, 1949	Capacity Occupied
<b>1948-49</b>	'000,000 bu.	'000 bu.	p. c.	'000 bu.	p. c.	'000 bu.	p. c.
Western country elevators....	265	16,776	6.3	129,323	48.8	66,740	25.2
Interior, private and mill.....	21	5,079	24.2	8,657	41.2	8,178	38.7
Interior terminals.....	21	680	3.2	1,974	9.4	1,206	5.7
Pacific coast.....	17	2,535	14.9	5,820	34.2	5,494	32.3
Port William—Port Arthur....	80	16,735	20.9	26,360	33.0	57,126	71.4
Bay ports, Goderich and Sarnia.....	33	3,998	12.1	12,852	38.9	6,102	18.5
Lower lake ports.....	19	4,020	21.2	7,326	38.6	4,880	25.7
St. Lawrence ports.....	25	2,910	11.6	3,807	15.2	3,371	13.5
Maritime ports.....	5	5	0.1	164	3.3	2,565	51.3
<b>Totals.....</b>	<b>486</b>	<b>52,738</b>	<b>10.9</b>	<b>196,283</b>	<b>40.4</b>	<b>155,662</b>	<b>32.0</b>

**Subsection 2.—Cold Storage and the Storage of Foods**

**Cold-Storage Warehouses.**—Under the Cold Storage Act, 1907 (6-7 Edw. VII, c. 6; now consolidated as R.S.C., 1927, c. 25), subsidies have been granted by the Federal Government to encourage the construction and equipment of cold-storage warehouses open to the public: the Act and regulations made thereunder are administered by the Department of Agriculture.

There are nine classifications of cold-storage warehouses in Canada: (1) public warehouses which store foods and food products and of which the entire space is open to the public; (2) semi-public, or those which store foods and food products and which, while retaining part of the space for the products of the owner, allot the remainder to the public; (3) private, or those which store foods and food products and allot no space to the public; (4) creamery, which are used only for storing butter made in the creamery; (5) creamery locker having refrigerated space for their own butter and, in addition, lockers for rental to the public; (6) cheese factory, used only for storing cheese made in the factory; (7) cheese factory locker, or those which have refrigerated space for their own cheese and, in addition, have lockers for rental to the public; (8) locker, where the total space is occupied by lockers for rental to the public and which may, in addition, cut, process, chill and freeze foods or food products for storage in lockers; and (9) grading station having refrigerated space used solely or principally for assembling cheese for grading purposes.

No hard and fast rule can be laid down for distinguishing between public and private warehouses. In general, those owned and operated by firms trading in the goods stored in the warehouses are designated "private", though most of these places rent space to the public when it is not required for their own purposes.

## 9.—Cold-Storage Warehouses, by Provinces, 1948

Province	Subsidized Public Warehouses				All Warehouses	
	Number	Refrigerated Space	Cost	Total Subsidy	Number	Refrigerated Space
		cu. ft.	\$	\$		cu. ft.
Prince Edward Island.....	6	264,666	134,101	39,775	12	144,207
Nova Scotia.....	17	4,955,799	3,921,065	1,167,039	53	6,030,433
New Brunswick.....	6	1,296,229	598,212	179,464	39	1,856,377
Quebec.....	18	636,628	799,246	239,774	152	11,831,330
Ontario.....	46	6,884,995	4,015,271	1,198,557	501	25,850,411
Manitoba.....	5	2,074,821	1,435,310	430,593	108	8,246,794
Saskatchewan.....	5	528,139	430,053	129,016	138	3,368,334
Alberta.....	5	624,925	475,876	142,763	113	6,248,138
British Columbia.....	58	18,369,739	5,866,074	1,759,821	121	26,351,109
<b>Totals.....</b>	<b>166</b>	<b>35,635,941</b>	<b>17,675,209</b>	<b>5,286,801</b>	<b>1,237</b>	<b>89,927,133</b>

## 10.—Storage and Refrigerated Space, by Economic Areas, as at June 30, 1948

Class of Storage	Maritime Provinces	Quebec	Ontario	Prairie Provinces	British Columbia	Totals
<b>Public—<sup>1</sup></b>						
Warehouses..... No.	42	43	169	35	86	375
Refrigerated Space—						
Freezer..... cu. ft.	2,148,721	3,191,999	4,999,675	4,443,053	3,444,383	18,227,831
Cooler..... " "	4,852,039	5,373,452	11,385,980	2,142,112	21,613,773	45,367,356
Locker..... " "	18,022	9,802	651,273	140,738	241,244	1,061,079
<b>Private—</b>						
Warehouses..... No.	62	109	169	110	25	475
Refrigerated Space—						
Freezer..... cu. ft.	822,259	808,001	1,780,750	2,563,135	344,255	6,318,400
Cooler..... " "	188,766	2,448,076	5,838,573	6,727,894	632,136	15,835,445
Locker..... " "	1,210	—	—	—	—	1,210
<b>Locker—</b>						
Warehouses..... No.	—	—	95	140	10	245
Refrigerated Space—						
Freezer..... cu. ft.	—	—	111,623	351,768	3,600	466,991
Cooler..... " "	—	—	43,963	244,605	6,520	295,088
Locker..... " "	—	—	404,992	630,590	65,198	1,100,780
<b>Creamery—<sup>2</sup></b>						
Warehouses..... No.	—	—	62	74	—	136
Refrigerated Space—						
Freezer..... cu. ft.	—	—	277,022	226,680	—	503,702
Cooler..... " "	—	—	115,383	353,888	—	469,271
Locker..... " "	—	—	142,619	38,803	—	181,422
<b>Cheese Factory—<sup>3</sup></b>						
Warehouses..... No.	—	—	6	—	—	6
Refrigerated Space—						
Cooler..... cu. ft.	—	—	98,558	—	—	98,558
<b>Totals, Warehouses.. No.</b>	<b>104</b>	<b>152</b>	<b>501</b>	<b>359</b>	<b>121</b>	<b>1,237</b>
<b>Totals, Refrigerated Space..... cu. ft.</b>	<b>8,031,017</b>	<b>11,831,330</b>	<b>25,850,411</b>	<b>17,863,266</b>	<b>26,351,109</b>	<b>89,927,133</b>

<sup>1</sup> Includes semi-public.  
locker warehouses and grading stations.<sup>2</sup> Includes creamery locker warehouses.<sup>3</sup> Includes cheese factory

# 11.—Stocks of Food Commodities on Hand in Cold-Storage and Other Warehouses and in Dairy Factories, as at Jan. 1, 1948

NOTE.—Total stocks include imported and in-transit stocks.

Item	As at Jan. 1	Minimum During Year	Date at which Minimum Occurred	Maximum During Year	Date at which Maximum Occurred	Average 12 Months
Butter (creamery, dairy and whey)—						
In storage.....'000 lb.	43,322	4,869	May 1	53,580	Oct. 1	32,463
Total stock....."	43,972	5,394	May 1	54,348	Nov. 1	33,628
Cheese (factory)—						
In storage....."	29,681	22,157	May 1	55,265	Sept. 1	35,864
Total stock....."	30,721	22,247	May 1	55,734	Sept. 1	36,224
Evaporated Whole Milk—						
Total stock....."	5,191	2,552	Mar. 1	27,446	Oct. 1	13,542
Skim-Milk Powder—						
Total stock....."	5,070	2,340	Apr. 1	10,247	Aug. 1	6,653
Eggs, Shell—						
In storage.....'000 doz.	2,453	1,235	Dec. 1	24,014	June 1	11,229
Total stock....."	3,965	1,487	Dec. 1	24,403	July 1	12,356
Eggs, Frozen—						
In storage.....'000 lb.	11,214	8,493	Dec. 1	12,710	July 1	10,194
Poultry (dressed)—						
In storage....."	35,313	8,690	Sept. 1	35,313	Jan. 1	17,956
Total stock....."	35,438	8,765	Sept. 1	35,438	Jan. 1	18,073
Pork, Fresh—						
In storage....."	6,109	3,252	Sept. 1	6,731	Feb. 1	5,168
Pork, Frozen—						
In storage....."	29,734	7,111	Nov. 1	57,885	Apr. 1	36,376
Total stock....."	29,765	7,111	Nov. 1	57,914	Apr. 1	36,391
Pork, Cured and in Cure—						
In storage....."	21,711	14,385	Oct. 1	25,349	Feb. 1	19,963
Lard—						
In storage....."	3,267	1,503	Nov. 1	4,045	June 1	3,097
Beef, Fresh—						
In storage....."	12,022	7,918	June 1	12,693	Feb. 1	10,245
Beef, Frozen—						
In storage....."	25,548	7,271	Aug. 1	27,577	Feb. 1	16,149
Total stock....."	25,664	7,271	Aug. 1	27,644	Feb. 1	16,165
Beef, Cured, etc.—						
In storage....."	805	543	Oct. 1	1,171	Apr. 1	897
Veal—						
In storage....."	6,624	2,923	Apr. 1	8,616	Nov. 1	6,089
Mutton and Lamb—						
In storage....."	9,153	1,750	Aug. 1	9,153	Jan. 1	5,034
Fish, Frozen Fresh—						
In storage....."	37,077	16,265	May 1	44,250	Nov. 1	32,487
Fish, Frozen Smoked—						
In storage....."	3,850	2,278	Mar. 1	4,064	July 1	3,288
Fruit—						
Apples (fresh)—						
In storage.....'000 bu.	4,911	15	Sept. 1	5,129	Dec. 1	1,536
Total stock....."	4,911	15	Sept. 1	5,129	Dec. 1	1,536
Frozen Fruit—						
In storage.....'000 lb.	12,804	6,617	June 1	20,532	Sept. 1	14,144
In Preservation—						
In storage....."	18,398	15,859	June 1	23,193	Oct. 1	19,603
Potatoes—						
In storage.....'000 tons	383	2	Sept. 1	535	Dec. 1	156



*Cold Storage of Wiltshire Pork Sides.*—Figures of meat in cold-storage and other warehouses in 1948 are given in Table 11. The 1948-49 Year Book, at p. 806, gives a statement of wiltshire pork sides in storage by the Meat Board of the Department of Agriculture at Apr. 3, 1948. The Meat Board did not carry out a storage program in 1949 and there were no stocks at Apr. 1 of that year.

*Cold Storage of Fish.*—The cold-storage holdings of fish averaged 35,800,000 lb. monthly in 1948 as compared with 37,500,000 lb. in the preceding year. At Jan. 1, 1949, the stocks were 37,400,000 lb., which was 3,500,000 lb. below the total at the beginning of the preceding year. Seasonal variations in the stock position, with a low in the spring and a high in the autumn, follow naturally from the fact that the major part of frozen fish is produced in the summer and early autumn months. Stocks piled up by autumn are intended to form the main supply of frozen products until the heavy production period of the following summer. The variation in the stock position from month to month is illustrated in the following statement:—

<i>Month</i>	<i>'000,000 lb.</i>	<i>Month</i>	<i>'000,000 lb.</i>
January 1.....	40·9	July 1.....	35·7
February 1.....	34·4	August 1.....	39·1
March 1.....	28·3	September 1.....	41·0
April 1.....	23·5	October 1.....	43·2
May 1.....	19·7	November 1.....	47·2
June 1.....	32·1	December 1.....	44·1

On the average, the 1948 stocks of frozen fish were constituted as follows: 82 p.c. fresh-frozen sea fish (including a small amount of shellfish); 9 p.c. fresh-frozen fresh-water fish; and 9 p.c. smoked sea and fresh-water fish. The monthly average of the stocks of frozen fresh sea fish amounted to 29,300,000 lb.; that of fresh-frozen fresh-water fish to 3,200,000 lb.; and that of smoked fish to 3,300,000 lb. The main species of sea fish kept in cold storage are salmon, halibut, cod and herring; the most important fresh-water species are generally whitefish, pickerel and tullibee; the smoked fish consists mainly of herring, cod and haddock.

On the Atlantic and Pacific coasts various firms and individuals engaged in producing and marketing fish operate freezing plants which also include cold-storage chambers or warehouses. All the larger companies have both freezing and cold-storage facilities, very often at several plants. In both coastal areas there are also public or other warehouses that handle fish as part of their general cold-storage business. In the inland sections of the country there are plants concerned mainly with freezing and holding fish but in most cases cold-storage fish stocks, whether of local production or from outside, are handled by general warehousing companies.

Freezing and cold-storage facilities vary considerably both in poundage capacity and in temperature maintenance. For freezing purposes some develop temperatures of  $-40^{\circ}\text{F.}$  or lower while others operate at  $0^{\circ}\text{F.}$ ,  $-5^{\circ}\text{F.}$  or  $-10^{\circ}\text{F.}$  For storage purposes, extremely low temperatures are not necessary. In some cases zero or lower may be the level and in other cases it may be anything up to  $10^{\circ}\text{F.}$  or  $15^{\circ}\text{F.}$

above zero. Federal fisheries technologists advise that in holding frozen fresh fish the temperature should not be higher than about  $-10^{\circ}\text{F}$ . Smoked fish, though perishable, does not require such low holding temperatures as that of frozen fresh.

*Cold Storage of Dairy Products.*—Cold-storage facilities are a necessary adjunct in the manufacture of dairy products since most of them are perishable to a varying degree.

All creameries have facilities for the storing of butter, the size and type of storage depending on the size of the creamery. Small country plants may have storage capacity for only 50 or 100 boxes of butter with refrigeration capable of bringing the temperature down to about  $20^{\circ}\text{F}$ . These rooms are used mostly for the chilling of butter for printing. If the butter is not printed for immediate sale, the butter solids are disposed of or transported to central cold storages or larger creameries with better refrigeration facilities. Butter stored for a long holding period is usually carried at a temperature of  $0^{\circ}\text{F}$ . or lower. Larger creameries may have such storage facilities adequate to store several carloads of butter or the butter may be transported to private or public cold storages in the larger urban centres.

In the case of cheese, temperature control is important in the curing process as well as in the prevention of deterioration. Most cheese factories are equipped with mechanical refrigeration and are required to have storage capacity for the production of 17 days during the period of maximum manufacture. The cheese is then transferred to central warehouses. Under the legislation administered by the Food and Drugs Act all unpasteurized cheese must be aged for 90 days before sale for consumption. During the first ten days following manufacture, the period when the cheese is maturing, storage must be at not less than  $58^{\circ}\text{F}$ . and during the remainder of the 90-day period at a temperature of not less than  $45^{\circ}\text{F}$ . For the holding period beyond 90 days the temperature is lowered to just above freezing point, especially if the cheese is to be held for a year or more.

Cold storages are essential in the ice-cream industry as the freezing of this product is part of the manufacturing process. Ice-cream hardening rooms are usually held at a temperature of  $-20^{\circ}\text{F}$ . to  $-30^{\circ}\text{F}$ .

Because of the perishable nature of milk the market milk industry must have cold storage too. As soon as the milk is bottled, it is placed in storage at a temperature of about  $40^{\circ}\text{F}$ . and held until the next day when it is delivered. Dry whole milk and other dried milk products containing fat are usually stored in cool air chambers to prevent rancidity, the temperature depending on the length of the storage period.

*Cold Storage of Other Foods.*—During the years 1943-47 the holdings of apples in Canada at the beginning of the storage season on Dec. 1 averaged 53 p.c. cold and 47 p.c. common storage.

In pre-war years the bulk of the crop was exported early in the season but changes in marketing practices due to continued lack of export outlets in the United Kingdom and Continental Europe have necessitated longer storage in Canada. In order to compete on both the domestic and export markets, however, additional storage space is gradually being constructed in Nova Scotia, Ontario and British Columbia.

Apple storage temperatures vary somewhat by varieties but are generally in the neighbourhood of 30°F. to 32°F.

Potatoes are generally held at production points and shipped out as needed throughout the season. While warehouse storage is quite common in parts of the Maritimes where commercial production is centred, most of the crop is stored in frost-proof cellars and pits.

### **Subsection 3.—Storage of Petroleum and Petroleum Products**

The storage facilities for petroleum and petroleum products in Canada consist of welded or bolted steel tankage located principally at refining and producing centres or at main distributing points. These centres are at or near Halifax, Quebec, Montreal, Ottawa, Toronto, Sarnia, Fort William, Regina, Calgary, Turner Valley, Edmonton and Vancouver. The loss through evaporation varies widely with the type of product being stored, the average atmospheric temperature, and the physical features of the storage tanks, some of which have special mechanical devices to minimize the loss. The use of aluminum paint on the outside of the tanks is of material aid in this direction.

The usual procedure is for the refining company to establish bulk storage plants at convenient distributing centres usually on a water-front so that full advantage can be taken of the lower cost of water-borne traffic. From these centres the goods are transferred by rail or by motor-tank truck to smaller distributing depots or directly to retail outlets. While pipelines are not used to any appreciable extent in Canada for transporting finished petroleum products, they are used for the transportation of crude petroleum from Portland, Me., U.S.A., to Montreal, from Oklahoma, U.S.A., to Sarnia, from the Turner Valley to Calgary and from the Leduc field to Edmonton.

A pipeline from the Edmonton area to Regina is under construction which will carry the greatly increased production of the Leduc and Redwater fields. The extension of this pipeline from Regina to Superior, Wis., U.S.A., was approved by the Transport Commission on Sept. 12, 1949.

Table 12 gives the inventories of petroleum and petroleum products annually at Jan. 1 from 1940 to 1949.





## Subsection 4.—General Warehousing

**Public Warehouses.**—The Dominion Bureau of Statistics undertook in 1944 an annual census of the principal public warehouses in Canada. Warehousing carried on by co-operatives, packing houses and other firms operating storage facilities in connection with their own businesses are not included. Several companies deriving more revenue from a moving, cartage or carrier business than from warehousing are also not included but are covered in the report "Motor Carriers, Freight-Passengers, 1947". In order to show the trend in the industry Table 13 was prepared from data supplied by 122 firms which reported both for 1946 and 1947. Further details are given in the report "Warehousing, 1947", published by the Dominion Bureau of Statistics.

## 13.—Summary Statistics of 122 Public Warehousing Firms Reporting in 1946 and 1947

Item	1946	1947	Item	1946	1947
Total revenue..... \$	14,711,013	16,590,001	Wages, regular..... \$	4,492,234	4,819,871
Total operating expenses. \$	12,606,854	13,867,421	Wages, casual..... \$	355,642	320,981
Net operating revenue.. \$	2,104,159	2,722,580	Salaried employees....No.	959	1,054
Net income..... \$	1,042,030	1,824,401	Salaries..... \$	1,754,192	1,985,244
Employees, regular....No.	3,032	3,129	Total salaries and wages. \$	6,602,068	7,126,096
Employees, casual.... "	442	358			

The net occupiable space reported by 129 firms in 1947 comprised 3,339,652 sq. ft. for merchandise, 2,025,367 sq. ft. for household goods and 15,263,284 cu. ft. of cold-storage space. The advance over 1946 was in cold storage which increased by nearly 1,000,000 cu. ft.

**Customs Warehouses.**—Warehouses for the storage of imported goods are known as customs warehouses. These are divided into nine classes as follows: (1) those occupied by the Federal Government, some of which are used for examination and appraisal of imported goods while others, known as King's Warehouses, are used for the storage of unclaimed, abandoned, seized or forfeited goods; (2) warehouses, consisting of an entire building or part thereof, properly separated from the rest of the building by a partition, which are used exclusively for the storage of imported goods consigned to the proprietor of the building; (3) buildings or parts of buildings properly partitioned off, used for the storage of imported goods consigned to the proprietor or others or for the storage of unclaimed or seized goods; (4) sufferance warehouses operated by the owners of vessels for the storage of in-bond goods transported by water or air;\* (5) yards, sheds and buildings intended for the storage of imported coal and coke; (6) farms, yards, sheds, etc., which an importer of horses or sheep intends to use for the feeding and pasturing of imported animals other than pure-bred mares; (7) warehouses for the storage of animals, including horses for racing, and articles for exhibition or for competition for prizes; (8) warehouses for clover seed imported for the purpose of being re-cleaned and prepared for a foreign market; and (9) yards, sheds, etc., which importers intend to use for the storage of goods too heavy or too bulky to be admitted to an established customs warehouse.

Railways and express companies have similar facilities.

### Subsection 5.—Bonded Warehousing and Storage of Wines

**Bonded Warehousing.**—The Excise Duty Branch of the Department of National Revenue considers any premises licensed under the Excise Act to be a warehouse, whether for storage of raw materials to produce finished tobacco or cigar products or for spirits or malt used for brewing. Practically the total production of spirits is placed in bonded warehouses while only a small part of the output of beer is retained in storage. Wine, unlike spirits and beer, is not secured under bond. All imports of alcoholic beverages must go through bonded warehouses before being released to Provincial Liquor Commissions or Boards, or other agencies authorized by the Commissions or Boards to take alcoholic beverages out of bond. Similarly, tobacco, cigars and cigarettes which are not stamped and duty paid, are secured in bond. In addition to these warehouses, there are those in which no manufacturing or production is carried on, but are used solely for the storage of goods upon which duty has not been paid. Goods are stored in these warehouses usually for the purpose of rapid distribution and for delivery as ships' stores. The conditions under which spirits, beer and tobacco are stored are described in the following paragraphs.

*Spirits.*—There are three types of storage in distilleries. The first consists of metal tanks in bonded warehouses of from 15,000 to 40,000 gal. capacity, which are used mainly for the storage of alcohol or other high-proof spirits. The second type are rack warehouses of solid brick or cement in which 8,000 to 60,000 bbl. are stored on racks in tiers of four to five barrels high. These barrels are mostly from 40 to 45 gal. capacity. The third type consists of bonded warehouse buildings in which casks and barrels of odd dimensions are stored on the floor and, to some extent, on skidways on top of the first row.

The tank warehouses are not generally heated. In most of the rack warehouses the heat is kept at a constant temperature and the humidity at a specific degree.

There are also other bonded warehouses for the storage of alcohol to be used, at a low rate of duty, in the production of pharmaceuticals, perfume, and vinegar.

*Beer.*—After beer is produced it is run to storage tanks some of which are of metal and glass-lined while others are of wood. No constant degree of heat or humidity is necessary in a brewery warehouse, except for the storage of lager beer when the temperature is kept below the freezing point. Malt, for use in the production of beer, is controlled under bond and is stored in bins of wood or cement; these are Crown locked.

*Tobacco.*—Raw-leaf tobacco when cured is, in the main, pressed in wooden hogsheads of 1,100 or 1,200 lb. weight. After shipment to the manufacturer it is stored in bond, since it becomes dutiable upon entrance to the manufacturer's premises and also after manufacture into cigars, cigarettes, smoking tobacco, etc. The field warehouses, where the tobacco is stored after curing, are not secured with Crown locks but shipment and sale are regulated by permit. Cigar leaf-tobacco is generally sold in cases so as not to injure the delicate leaf. The type used for fillers is packed in jute.

**SPIRITS, TOBACCO AND MALT IN BOND.**—Table 14 shows the quantities of distilled liquor, tobacco, cigars and cigarettes in bond in recent years. The yearly inventory of breweries shows an increase of total gallonage of beer in stock from 19,972,000 in 1947 to 22,137,000 in 1948.



## 14.—Distilled Liquor, Tobacco, Cigars and Cigarettes in Bond, Quarterly, 1945-49

Year	March	June	September	December
DISTILLED LIQUOR				
1945.....'000 pf. gal.	35,821	43,215	45,429	48,463
1946....."	52,141	52,806	52,900	53,605
1947....."	55,591	59,459	59,465	62,754
1948....."	66,582	68,764	68,951	69,809
1949....."	72,363	74,166	74,063	75,542
TOBACCO—UNMANUFACTURED				
1945.....'000 lb.	117,013	112,260	91,780	97,941
1946....."	122,542	111,671	91,815	96,424
1947....."	152,304	136,336	116,014	112,262
1948....."	152,884	137,828	115,936	120,842
1949....."	171,202	155,606 <sup>1</sup>	131,552	..
TOBACCO—MANUFACTURED <sup>1</sup>				
1945.....'000 lb.	8	8	4	3
1946....."	14	3	2	1
1947....."	8	3	1	2
1948....."	5	3	1	1
1949....."	14	1	1	1
CIGARS				
1945.....'000 lb.	22	174	22	14
1946....."	30	572	34	15
1947....."	335	418	437	681
1948....."	1,513	2,760	1,147	657
1949....."	3,336	3,727	2,730	1,050
CIGARETTES AT 3 LB. OR UNDER				
1945.....'000 lb.	67,812	62,874	72,697	65,747
1946....."	18,021	6,726	21,405	20,301
1947....."	34,920	37,391	37,656	14,100
1948....."	12,703	15,922	6,379	7,729
1949....."	17,527	3,108	3,519	3,809

<sup>1</sup> Includes Newfoundland.

In Table 15 the quantities of spirits, malt and tobacco products that have been released from bond for consumption are shown for the years 1940 to 1949. These figures, supplied by the Department of National Revenue, are the most reliable data for the consumption of these bonded products. Before the publication of the 1948-49 edition of the Year Book they appeared under "Dominion Public Finance" (see p. 964 of the 1947 edition).

### 15.—Spirits, Malt Liquor, Malt and Tobacco taken out of Bond for Consumption, Years Ended Mar. 31, 1940-49

NOTE.—Figures for the years prior to 1900 are given in the 1916-17 Year Book, p. 528; for 1901-10 in the 1933 Year Book, p. 840; for 1911-21 in the 1938 Year Book, p. 855; for 1922-29 in the 1945 edition, p. 936; and for 1930-39 the 1947 edition, p. 964.

Year	Spirits gal.	Malt Liquor gal.	Malt lb.	Cigars No.	Cigarettes No.	Tobacco <sup>1</sup> lb.
1940.....	2,032,987	65,912,495	143,056,382	139,698,605	7,301,419,960	28,403,208
1941.....	2,371,633	78,731,132	168,025,398	173,484,743	7,776,291,482	31,254,234
1942.....	2,944,391	94,992,330	213,199,222	198,595,682	9,018,272,219	31,626,932
1943.....	3,445,872	103,291,141	228,029,691	204,699,110	10,803,185,549	31,510,083
1944.....	2,620,297	97,192,032	219,242,999	196,407,845	11,405,842,655	32,264,175
1945.....	2,676,482	116,009,457	219,529,938	200,879,906	11,982,675,329	30,876,112
1946.....	4,087,690	134,579,706	259,083,043	210,694,900	14,512,351,682	31,048,195
1947.....	4,446,130	151,012,603	307,478,641	221,131,244	14,972,562,544	31,516,702
1948.....	4,632,506	169,485,610	335,232,688	215,434,810	15,263,987,385	30,187,676
1949.....	4,360,914	168,265,128	349,432,511	207,354,058	15,909,596,750	30,953,335

<sup>1</sup> Figures include snuff.

**Storage of Wines.**—The wine industry is confined to a few localities such as the Niagara Peninsula in Ontario and the Okanagan Valley in British Columbia. Firms manufacturing native wines are not bonded, as far as the Federal Government is concerned, nor is wine in storage for maturing placed in bond. The only goods warehoused in bond in connection with wineries are their sugar supplies and supplies of grape spirit distilled by the distilleries and held by the wineries for fortifying their wines. A part of each year's production is, however, stored at the wineries at a cool and even temperature. Native wine produced and placed in storage for maturing and blending for the years 1944-47 was reported as follows:—

Year		Ontario	Other Provinces	Total
1944.....	gal.	3,863,592	349,958	4,213,550
	\$	1,600,835	204,928	1,805,763
1945.....	gal.	3,761,863	371,872	4,133,735
	\$	1,951,517	243,321	2,194,838
1946.....	gal.	5,056,564	476,917	5,533,481
	\$	3,180,465	369,498	3,549,963
1947.....	gal.	5,517,482	570,522	6,088,004
	\$	3,871,622	424,567	4,296,189

### Section 4.—Merchandising and Service Establishments\*

Because of the multiplicity of establishments which make up the distributive system, complete coverage of merchandising and service establishments is possible only through the Censuses of 1931 and 1941. Although some information was gathered prior to 1931 the census of that year was the first complete survey of distribution encompassing all wholesale, retail and service businesses including hotels. Tabulations may be found in Volumes X and XI of the Census of 1931. The Census of 1941 included the same group of establishments with certain refinements and added statistics. Results for retail establishments are contained in Volume X and for wholesale and service establishments in Volume XI of the 1941 Census publications.

With the restoration of the supply of consumer goods following the end of the Second World War, business and industry became acutely aware of the value of marketing data to be obtained from the census surveys. However, as time elapsed,

\* Prepared in the Merchandising and Services Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

shifts in population, the location of new areas of natural resources, the restoration of freer competition and the emergence of many new consumer goods on the shelves of distributors created needs for up-to-the-minute data. While monthly data on retail and wholesale trading had been gathered for several years prior to 1941, efforts have been made since 1945 to extend and improve these current series so as to provide the marketing information required by industry and government. For this reason, and because several of these revised or newly introduced series have stabilized, most of the space in this Section of the Year Book is given to recent data. The principal limitation of such information is the lack of detailed county-by-county and city-by-city figures on which marketing programs may depend, but further research will, in time, yield more and more adequate data for users of consumer expenditure data.

More detailed descriptions of census data may be found at pp. 596-621 of the 1945 Year Book and with slightly different emphasis at pp. 527-536 of the 1943-44 edition. Summaries of wholesale, retail and service establishments by type of operation, kind of business and region appear in this Section.

### Subsection 1.—Results of the 1941 Census of Merchandising

**Wholesale Trade.**—As mentioned on p. 856, detailed tabulations of the operations of wholesalers, together with explanations of the terms used in describing the various classes of wholesale business, are given in Volume XI of the Census of 1941, and in briefer form in previous issues of the Year Book. Table 16 recapitulates these data regionally and by type of operation.

**16.—Wholesale Trade, by Provinces and Major Types of Operation, 1941**

Province and Type of Operation	Estab- lishments	Total Sales	Em- ployees	Salaries and Wages
Province	No.	\$	No.	\$
Prince Edward Island.....	100	13,192,800	441	440,900
Nova Scotia.....	681	152,600,900	4,013	5,659,700
New Brunswick.....	507	88,190,000	3,084	4,354,900
Quebec.....	5,075	1,726,520,500	32,634	54,695,600
Ontario.....	6,244	1,744,663,700	40,450	67,894,200
Manitoba.....	2,206	579,612,200	9,566	15,015,800
Saskatchewan.....	4,897	283,521,900	8,141	11,515,200
Alberta.....	3,336	323,138,100	8,147	12,252,700
British Columbia.....	1,708	379,126,700	10,994	17,615,800
<b>Totals<sup>1</sup>.....</b>	<b>24,758</b>	<b>5,290,750,500</b>	<b>117,471</b>	<b>189,449,100</b>
Type of Operation				
Wholesalers proper.....	9,417	2,358,475,300	74,800	117,389,500
Manufacturers' sales branches and offices.....	1,622	1,206,993,800	20,782	40,034,400
Petroleum bulk tank stations.....	3,973	216,292,300	4,968	6,890,400
Agents and brokers.....	2,106	907,520,300	4,423	8,677,100
Assemblers of primary products.....	7,366	453,300,500	10,499	13,356,000
Other.....	274	148,168,300	1,999	3,101,700

<sup>1</sup> Includes Yukon and the Northwest Territories.

**Retail Trade.**—Volume X of the Census of 1941 contains detailed tabulations of the 1941 Census results for the retail trade. Table 17 is presented here for comparison with current data given in Subsection 2.



## 17.—Retail Trade, by Provinces and Kinds of Business, 1941

Province and Kind of Business	Stores	Pro-prietors	Employees		Salaries and Wages	Sales	Stocks at Dec. 31, 1941
			Full-time	Part-time			
Province	No.	No.	No.	No.	\$'000	\$'000	\$'000
Prince Edward Island.....	863	859	1,425	308	1,135	15,936	3,495
Nova Scotia.....	6,790	6,250	13,357	3,938	12,959	165,034	23,776
New Brunswick.....	4,988	4,629	9,004	2,058	8,335	101,843	17,209
Quebec.....	39,712	38,574	74,562	22,187	72,380	818,671	138,807
Ontario.....	47,055	44,891	121,042	44,800	134,731	1,406,977	206,163
Manitoba.....	7,219	7,058	20,387	5,069	20,215	210,833	30,020
Saskatchewan.....	10,088	9,644	14,641	4,611	14,550	186,886	37,262
Alberta.....	9,222	9,186	16,760	4,639	18,817	221,071	37,511
British Columbia.....	11,253	10,658	25,649	7,920	30,964	309,573	44,252
<b>Totals<sup>1</sup></b> .....	<b>137,331</b>	<b>131,823</b>	<b>297,047</b>	<b>95,561</b>	<b>314,438</b>	<b>3,440,902</b>	<b>540,864</b>
Kind of Business							
Food group.....	48,468	48,017	52,265	22,690	46,667	786,247	64,753
Country general stores.....	11,917	11,894	11,273	4,032	9,309	214,748	64,809
General merchandise group.....	3,794	2,610	68,622	20,900	72,595	525,971	99,984
Automotive group.....	16,867	16,784	38,541	7,652	49,458	594,720	58,885
Apparel group.....	12,601	11,148	25,208	11,388	29,638	295,212	84,839
Building materials group.....	5,801	4,843	14,375	3,498	18,325	174,203	47,449
Furniture-household group.....	3,498	2,784	11,421	2,087	15,472	118,357	28,133
Restaurant group.....	8,821	10,311	32,722	6,814	22,635	131,181	4,232
Second-hand group.....	1,740	1,770	1,005	357	1,000	11,070	2,785
Other retail stores.....	23,824	21,662	41,615	16,143	49,339	589,193	84,995

<sup>1</sup> Includes Yukon and the Northwest Territories.

**Retail Service Establishments.**—This group of businesses includes those that provide personal or repair services or that offer amusement or recreation facilities to the public. A portion of these firms indicated some merchandising in their returns, but were classified as services because the greater proportion of their annual business consisted of service receipts. The principal statistics on retail service establishments derived from 1941 Census returns are shown in Table 18.

## 18.—Retail Service Establishments, by Provinces and Kinds of Business, 1941

Province and Kind of Business	Estab-lishments	Total Receipts	Pro-prietors	Employees		Salaries and Wages
				Full-time	Part-time	
Province	No.	\$'000	No.	No.	No.	\$'000
Prince Edward Island.....	325	964	327	273	222	242
Nova Scotia.....	1,860	9,409	1,869	2,353	650	2,612
New Brunswick.....	1,484	5,626	1,519	1,261	580	1,479
Quebec.....	13,807	64,829	14,074	16,425	5,025	19,047
Ontario.....	17,612	110,422	18,058	27,226	9,390	35,251
Manitoba.....	2,977	15,426	2,999	4,308	1,667	5,029
Saskatchewan.....	3,704	10,150	3,740	2,111	959	2,564
Alberta.....	3,341	13,184	3,438	2,961	1,050	3,932
British Columbia.....	4,147	24,559	4,187	5,849	2,085	7,933
<b>Totals<sup>1</sup></b> .....	<b>49,271</b>	<b>254,678</b>	<b>50,224</b>	<b>62,751</b>	<b>21,647</b>	<b>78,109</b>
Kind of Business						
Amusement and recreation group.....	4,954	61,345	4,494	12,021	9,717	12,948
Business services.....	1,334	24,432	1,145	6,246	1,166	9,600
Personal services.....	24,731	85,893	25,961	28,656	5,013	32,408
Photography.....	1,078	6,901	1,039	1,667	657	2,286
Undertaking and burial.....	1,225	13,132	1,193	1,463	882	3,188
Repairs and service.....	11,932	37,512	12,295	5,710	1,794	9,430
Miscellaneous.....	4,017	25,463	4,097	7,018	2,418	8,249

<sup>1</sup> Includes Yukon and the Northwest Territories.

### Subsection 2.—Current Merchandising and Service Statistics

Indexes of wholesale sales and inventories for wholesalers proper who sell largely to retailers are based on a sample of firms in nine principal trades. Monthly and annual indexes have been available since 1935. Estimates of Canada's retail trade are now being compiled on a new basis in order to overcome shortcomings of the former monthly and annual series. Coverage for the retail field has been enlarged to include smaller sizes of stores. Adequate weighting has been given to sales trends for different sizes of stores, and results for several additional trades are compiled separately. Revised data have been prepared for 1947 and 1948, but no provision has yet been made to obtain comparable figures for the years 1942 to 1946.

Studies of operating results for wholesale establishments and chain stores have been made, for the year 1947, to complement those covering independent stores which were prepared for 1946 and earlier years. Summary statistics for both of these appear in this Subsection.

The need for current information on retail consumer credit was recognized when a program of wartime controls limited credit dealing during the Second World War. Studies of trends in retail credit were undertaken by the Wartime Prices and Trade Board to observe the effects of credit regulations. Later the Dominion Bureau of Statistics carried on this work adding several trades and extending the coverage.

Statistics on the operations of finance companies are also available for 1947 and 1948, the results of a study somewhat similar to one carried out in 1941. Special attention is given to the automotive division which forms the major portion of the activities of these organizations.

**Wholesale Trade.**—Monthly index numbers of sales in several branches of the wholesale trade have been prepared since 1935. Indexes of sales (on the base 1935-39=100) are calculated each month for nine wholesale trades, based on reports received from a sample of firms whose sales made up about 68 p.c. of the total volume of business done by wholesalers in those trades in 1941. The sample of reporting firms is limited to wholesalers proper, i.e., wholesale establishments that perform the complete functions of jobbers and wholesalers, buying merchandise in large quantities on their own account and selling in broken lots. In addition, the trades selected are those engaged principally in supplying retailers and include the following: automotive supply and equipment, drugs, clothing, footwear, dry goods, fruits and vegetables, groceries, hardware, and tobacco and confectionery. Inventory figures are calculated from a smaller sample, since not all firms are able to provide month-end inventory figures as required.

**Recent Trends.**—The dollar volume of wholesale sales in Canada in 1948, measured by the composite index of sales in the nine lines of trade for which figures are available, was 4 p.c. higher than in 1947, 99 p.c. higher than in 1941 and 183 p.c. above the average for the base period, 1935-39. The average index for the twelve months of 1948 (on the base, average for 1935-39=100) stood at 283.2 compared with 272.0 for 1947 and 142.0 for 1941.

There was little variation in percentage changes from 1947 for the different regions of the country although the Western Provinces registered slightly greater increases than those of the east.

Tobacco and confectionery and drug wholesalers, with gains of 12 p.c. and 11 p.c., respectively, were the only trades to register greater increases over 1947 than occurred in 1947 over 1946. Increases in these trades, however, were larger in the

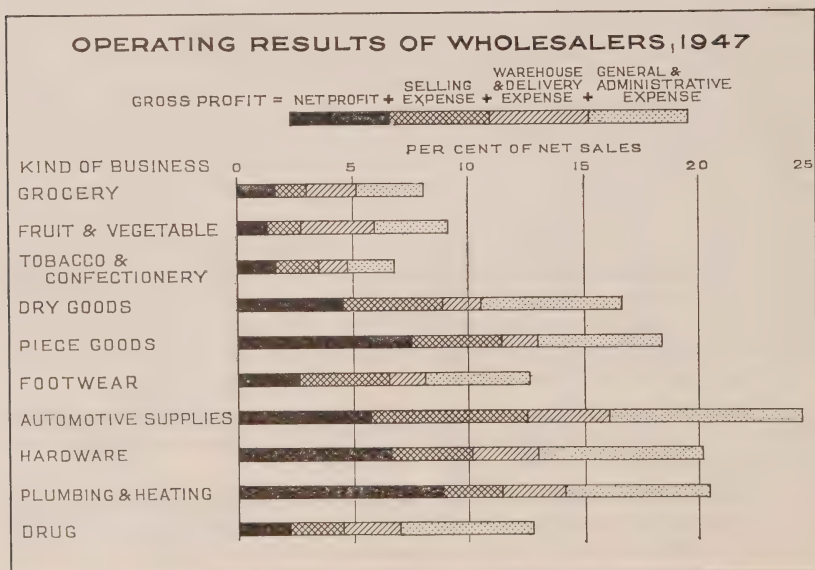
earlier part of 1948 than in the later part of the year. In all other trades surveyed, there was a continuation of the lowering of the rate of increase that has been evident over the past several years.

**19.—Annual Indexes of Wholesale Sales, by Kinds of Business and by Provinces, 1941-48**

(1935-39=100)

Kind of Business and Province	1941	1942	1943	1944	1945	1946	1947	P.C. Change 1947 from 1946	1948	P.C. Change 1948 from 1947
Automotive equipment...	157.8	147.6	158.1	197.2	242.8	334.0	369.8	+10.7	379.9	+ 2.7
Drugs.....	145.2	165.7	184.2	201.9	222.1	245.2	254.6	+ 3.8	281.8	+10.7
Clothing.....	142.8	170.9	177.5	183.1	186.3	229.3	255.4	+11.4	285.1	+ 3.8
Footwear.....	141.6	161.0	173.1	188.8	224.0	279.4	300.8	+ 7.7	286.8	- 4.7
Dry goods.....	141.8	160.2	150.9	165.9	161.9	197.5	244.5	+23.8	264.7	+ 8.3
Fruits and vegetables....	131.2	158.5	206.1	222.0	262.4	291.2	274.7	- 5.7	237.2	-13.7
Groceries.....	134.7	146.5	150.3	169.3	180.2	208.9	244.2	+16.9	254.0	+ 4.0
Hardware.....	165.2	170.0	173.1	183.8	212.0	277.4	325.0	+17.2	359.7	+10.7
Tobacco and confectionery	150.6	172.4	207.3	230.1	258.1	296.9	317.1	+ 6.8	354.8	+11.9
<b>Totals, Wholesale Trade.</b>	<b>142.0</b>	<b>156.2</b>	<b>168.3</b>	<b>186.0</b>	<b>205.4</b>	<b>244.0</b>	<b>272.0</b>	<b>+11.5</b>	<b>283.2</b>	<b>+ 4.1</b>
Maritime Provinces.....	152.7	169.7	190.7	217.0	235.0	257.6	282.3	+ 9.6	290.4	+ 2.9
Quebec.....	140.4	152.9	161.7	176.9	191.5	223.4	255.5	+14.4	263.1	+ 3.0
Ontario.....	144.2	157.4	166.0	183.6	206.9	245.9	275.8	+12.2	287.7	+ 4.3
Prairie Provinces.....	132.3	145.9	161.6	183.1	198.2	243.6	261.1	+ 7.2	273.5	+ 4.7
British Columbia.....	155.0	175.9	190.8	199.0	226.5	271.9	314.6	+15.7	333.8	+ 6.1

**Operating Results of Wholesalers.**—A study on the operations of wholesalers was carried out for a few trades in 1938, but until 1947 no other survey on this subject had been undertaken by the Dominion Bureau of Statistics. Wholesalers proper—performing the functions of warehousing and delivery and holding title to goods sold—for the major consumer commodity trades were canvassed as to details on their 1947 operations.





These statistics assist merchants by permitting a comparison of their own operations with the average for their trade and enable them to assess the efficiency of their own phases of operation or indicate areas of operation where economies might be effected. Expenses were grouped into three sections—selling; warehouse and delivery; general and administrative—with a further classification of expense items under each function. Results were presented by sales-size groups for each trade. In addition to profit and loss data, information was obtained on sales composition, sales distribution, floor space, and other factors having a bearing on operating ratios.

## 20.—Operating Ratios for Selected Kinds of Wholesale Business, 1947

Kind of Business	Cost of Goods Sold	Gross Profit	Selling Expense	Warehouse and Delivery Expense	General and Administrative Expense	Net Operating Profit <sup>1</sup>	Stock Turnover Rate <sup>2</sup>	Sales to Retailers
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	No.	p.c.
Groceries.....	91-93	8-07	1-31	2-17	2-91	1-68	9-9	92-5
Fruit and vegetables.....	90-87	9-13	1-34	3-22	3-21	1-36	62-0	73-3
Tobacco and confectionery.....	93-15	6-85	1-85	1-24	2-08	1-68	20-0	98-7
Dry goods.....	83-36	16-64	4-39	1-64	6-10	4-51	6-4	92-2
Piece goods.....	81-60	18-40	3-93	1-58	5-40	7-49	5-0	38-3
Footwear.....	87-36	12-64	3-95	1-56	4-55	2-58	4-8	97-3
Automotive parts.....	75-52	24-48	6-76	3-61	8-37	5-74	5-4	69-2
Hardware.....	79-86	20-14	3-56	2-82	7-15	6-61	4-0	68-5
Heating and plumbing supplies.....	79-55	20-45	2-51	2-74	6-34	8-86	6-3	70-7
Drugs.....	87-23	12-77	2-44	2-42	5-76	2-15	5-1	84-8

<sup>1</sup> Before addition of miscellaneous income or deduction of income tax.  
divided by average of beginning and year-end inventories.

<sup>2</sup> Cost of goods sold

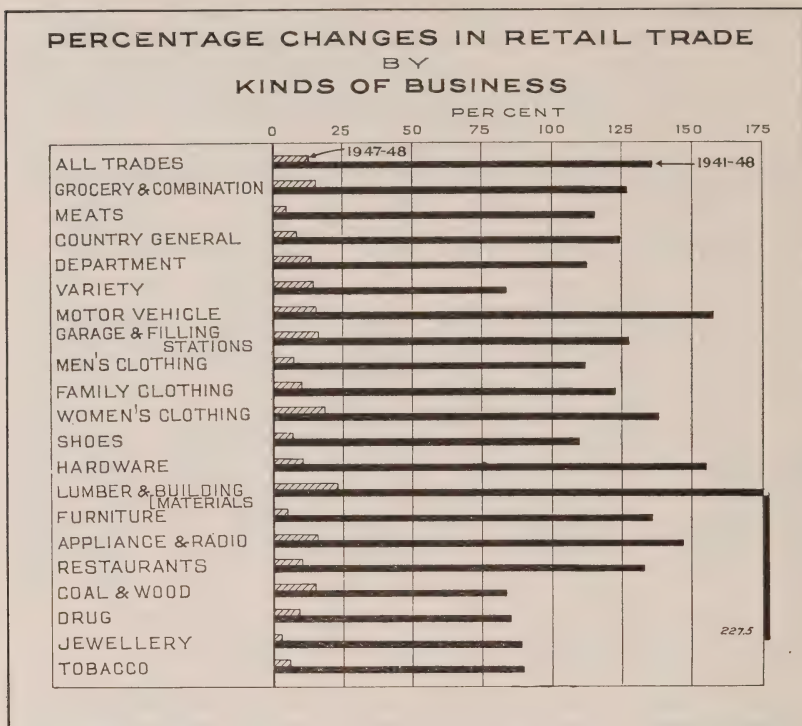
**Retail Trade.**—Canada's retail trade for 1948 has been estimated at approximately \$8,110,000,000. The year was a prosperous one for retail merchants and sales volume exceeded the 1947 total of \$7,138,000,000, by 14 p.c. Early indications are that a further, but smaller, increase occurred in 1949. On the basis of preliminary information it is estimated that trade in 1949 was approximately \$7,700,000,000.

Expansion of Canada's retail trade was shared by each of the kinds of business reporting. Price changes undoubtedly accounted for a substantial part of the gains in several sectors where heavy increases were evident such as in food, departmental and variety merchandising outlets. Continued expansion in the construction industry helped produce the demand for lumber and building materials, which at retail level showed a substantial gain over the previous year.

Early 1949 figures indicate some slackening in consumer buying for personal goods and household durables, with food and lumber and building materials sales holding firm. With increased production of new motor-vehicles, the automotive trades absorbed a greater portion of the consumer dollar.

Retail merchants in all provinces enjoyed an increased volume of sales in 1948. Oil developments and supplementary grain payments in Western Canada helped to stimulate activity in the Prairie Provinces where the largest gains were to be found.

In Table 21 the analysis by kinds of business has been recently modified, as shown below, and does not correspond with the presentation given in earlier Year Books. Comparison for the years 1947 and 1941, however, has been made on a comparable basis.



21.—Estimated Retail Trade, by Provinces and Kinds of Business, 1941, 1947 and 1948

Province and Kind of Business	1941	1947	1948
<b>Province</b>	<b>\$'000,000</b>	<b>\$'000,000</b>	<b>\$'000,000</b>
Maritime Provinces.....	283	566	615
Quebec.....	819	1,684	1,885
Ontario.....	1,407	2,705	3,094
Manitoba.....	211	445	510
Saskatchewan.....	187	417	481
Alberta.....	221	495	597
British Columbia.....	309	826	928
<b>Totals.....</b>	<b>3,437</b>	<b>7,138</b>	<b>8,110</b>
<b>Kind of Business</b>			
Grocery and combination stores.....	567	1,110	1,287
Meat stores.....	80	165	173
Country general stores.....	213	442	479
Department stores.....	378	707	805
Variety stores.....	85	136	156
Motor-vehicle dealers.....	360	799	928
Garages and filling stations.....	205	396	465
Men's clothing stores.....	80	157	169

**21.—Estimated Retail Trade, by Provinces and Kinds of Business, 1941, 1947 and 1948**  
—concluded

Kind of Business	1941	1947	1948
<b>Kind of Business—concluded</b>	<b>\$'000,000</b>	<b>\$'000,000</b>	<b>\$'000,000</b>
Family clothing stores.....	74	151	165
Women's clothing stores.....	71	142	169
Shoe stores.....	44	86	92
Hardware stores.....	73	169	186
Lumber and building materials dealers.....	80	213	262
Furniture stores.....	64	144	151
Appliance and radio stores.....	46	99	114
Restaurants.....	127	275	303
Coal and wood dealers.....	99	158	182
Drug stores.....	101	171	187
Jewellery stores.....	38	70	72
Tobacco stores.....	43	78	82
Other.....	609	1,470	1,683
<b>Totals, All Retail Trade.....</b>	<b>3,437</b>	<b>7,138</b>	<b>8,110</b>

**Chain Stores.**—Chain-stores sales in 1948 amounted to \$1,335,174,000, a gain of more than 13 p.c. over 1947, when sales volume was \$1,177,323,000. Sales in the average of 6,823 chain-store units made up 18 p.c. of all retail sales in Canada. Chain-store statistics are summarized in Tables 22 and 23.

**22.—Chain-Store Statistics, 1930 and 1941-48**

Year	Average Number of Stores	Net Retail Sales	Salaries and Wages Paid to Store Employees	Stocks on Hand, End of Year		Accounts Outstand- ing, End of Year
				Stores	Warehouses	
		\$'000	\$'000	\$'000	\$'000	\$'000
1930.....	8,097	487,336	50,405	60,457	..	..
1941.....	7,622	639,210	57,777	68,619	20,976	38,376
1942.....	7,010	687,447	57,654	66,940	22,633	..
1943.....	6,780	703,950	58,804	67,628	22,603	15,527
1944.....	6,560	769,643	63,300	66,944	21,855	15,093
1945.....	6,580	876,209	68,196	68,247	29,013	16,369
1946.....	6,559	1,014,847	77,474	85,345	37,436	19,643
1947.....	6,716	1,177,323	91,266	105,040	43,546	31,492
1948.....	6,823	1,335,174	107,697	118,452	46,190	40,199

**23.—Chain-Store Sales, by Provinces and Kinds of Business, 1946-48**

NOTE.—Group totals may include kinds of business for which separate figures are not shown.

Province	1946	1947 <sup>1</sup>	1948 <sup>1</sup>	P.C. Change 1948 from 1947
	\$'000	\$'000	\$'000	
Maritime Provinces.....	88,125	93,435	103,538	+10.8
Quebec.....	202,105	247,094	266,109	+ 7.7
Ontario.....	435,194	509,079	595,301	+16.9
Manitoba.....	50,009	56,138	63,779	+13.6
Saskatchewan.....	59,760	63,026	68,199	+ 8.2
Alberta.....	65,608	72,889	84,241	+15.6
British Columbia.....	109,839	130,555	148,753	+13.9
Yukon and Northwest Territories.....	4,207	5,107	5,254	+ 2.9
<b>Canada.....</b>	<b>1,014,847</b>	<b>1,177,323</b>	<b>1,335,174</b>	<b>+13.4</b>

<sup>1</sup> Subject to revision.



## 23.—Chain-Store Sales, by Provinces and Kinds of Business, 1946-48—concluded

Kind of Business	1946	1947 <sup>2</sup>	1948 <sup>1</sup>	P.C. Change 1948 from 1947
Kind of Business	\$'000	\$'000	\$'000	
<b>Food Group—</b>				
Grocery, combination and meat markets.....	245,278	309,689	393,618	+27.1
<b>Totals, Food Group<sup>2</sup>.....</b>	<b>258,579</b>	<b>324,303</b>	<b>408,430</b>	<b>+25.9</b>
<b>Country General Stores.....</b>	<b>14,145</b>	<b>12,542</b>	<b>15,123</b>	<b>+20.6</b>
<b>General Merchandise Group<sup>3</sup>—</b>				
Variety stores.....	107,586	117,925	133,907	+13.6
<b>Totals, General Merchandise Group<sup>2</sup>.....</b>	<b>119,582</b>	<b>130,339</b>	<b>146,546</b>	<b>+12.4</b>
<b>Automotive Group.....</b>	<b>16,828</b>	<b>23,005</b>	<b>23,283</b>	<b>+1.2</b>
<b>Apparel Group—</b>				
Men's and boys' clothing and furnishing stores.....	13,037	16,504	17,919	+8.6
Family clothing stores.....	23,570	30,454	32,811	+7.7
Women's apparel and accessories stores.....	23,076	29,024	34,698	+19.5
Shoe stores.....	26,107	28,731	31,378	+9.2
<b>Totals, Apparel Group.....</b>	<b>85,790</b>	<b>104,713</b>	<b>116,806</b>	<b>+11.5</b>
<b>Building Materials Group.....</b>	<b>51,474</b>	<b>59,973</b>	<b>68,114</b>	<b>+13.6</b>
<b>Furniture, Household and Radio Group—</b>				
Furniture stores.....	22,245	32,891	35,679	+8.5
Household appliance and radio dealers.....	16,960	22,653	27,342	+20.7
<b>Totals, Furniture Group.....</b>	<b>39,205</b>	<b>55,549</b>	<b>63,021</b>	<b>+13.5</b>
<b>Restaurant Group.....</b>	<b>20,565</b>	<b>20,726</b>	<b>21,948</b>	<b>+5.9</b>
<b>Other Retail Stores—</b>				
Drug stores.....	26,484	26,868	27,458	+2.2
Jewellery stores.....	18,709	18,851	21,392	+13.5
Government liquor stores.....	249,023	264,490	267,492	+1.1
<b>Totals, Other Retail Stores<sup>2</sup>.....</b>	<b>408,679</b>	<b>446,173</b>	<b>471,903</b>	<b>+5.8</b>
<b>Totals, All Chain Stores.....</b>	<b>1,014,847</b>	<b>1,177,323</b>	<b>1,335,174</b>	<b>+13.4</b>

<sup>1</sup> Subject to revision.  
stores excluded.<sup>2</sup> Includes other kinds of business within the group.<sup>3</sup> Department

**New Motor-Vehicle Sales.**—Fewer new motor-vehicles were sold in Canada in 1948 than in 1947. The reduction in sales of new vehicles between 1947 and 1948 resulted from the decline in sales of new passenger cars. Sales of commercial vehicles did not fall off, but continued the gain of the previous year. In 1948 a total of 221,300 new passenger and commercial vehicles sold for \$439,216,988; in 1947, 230,255 units retailed for \$416,237,495. Total passenger car sales in 1948 numbered 145,655 units with a retail value of \$282,903,958 compared with the 1947 sales of 159,205 vehicles having a value of \$283,190,390. There were 75,645 new trucks and buses sold for \$156,313,030 in 1948, while 1947 volume was 71,050 units valued at \$133,047,105. Values used are prices actually paid by purchasers at point of manufacture, including sales and excise taxes, charges for standard accessories and dealers commissions, but excluding freight charges from factory to point of purchase.

On Mar. 23, 1949 the excise tax on passenger vehicles was reduced to 10 p.c. over and above sales taxes. In the first seven months of 1949, total sales of passenger vehicles were 52 p.c. over sales volume in the same period in 1948; sales of trucks gained 15 p.c. for a total increase of 37 p.c. Despite the lowering of the excise tax, the average sales value of new passenger cars in 1949 from January to July reached \$2,078 compared with \$1,942 in 1948 and \$1,779 in 1947.

#### 24.—Retail Sales of New Motor-Vehicles, 1936-48

Year	Passenger Cars		Trucks and Buses		Totals	
	No.	\$	No.	\$	No.	\$
1936.....	92,287	95,403,199	21,027	22,179,597	113,314	117,582,796
1937.....	114,275	116,886,384	30,166	32,284,193	144,441	149,170,527
1938.....	95,751	105,006,462	25,414	30,005,446	121,165	135,011,908
1939.....	90,054	97,131,128	24,693	28,836,393	114,747	125,967,521
1940.....	101,789	114,928,833	28,763	33,916,445	130,552	148,845,278
1941.....	83,650	108,907,312	34,432	43,008,207	118,082	151,915,519
1942-45.....						
1946.....	77,742	120,325,496	42,302	73,003,500	120,044	193,329,005
1947.....	159,205	283,190,390	71,050	133,047,105	230,255	416,237,495
1948.....	145,655	282,903,958	75,645	156,313,030	221,300	439,216,988

**Farm Implement Sales.**—Sales of farm implements and equipment in Canada in 1948, as reported by manufacturers and importers mainly at wholesale prices, amounted to \$170,666,070, an increase of 39 p.c. over the 1947 volume of \$122,394,742. These figures do not include sales of parts, binder twine, motor trucks and machinery. Supplementary information indicated that the sales figures quoted at wholesale prices should be increased by 20 p.c. to bring them to a retail value. The estimated amounts spent by Canadian farmers, therefore, on new machinery and implements during 1948 was approximately \$204,000,000 compared with \$148,700,000 in 1947.

The volume of sales of repair parts at wholesale prices in 1948 was \$26,996,844, 16 p.c. above the \$23,276,162 reported for the year 1947. Applying an average mark-up of 31.6 p.c. to bring the figure to retail prices, the estimated retail value of repair parts sold in 1948 was approximately \$35,000,000 compared with \$30,562,000 in 1947.

#### 25.—Farm Implement and Equipment Sales, by Provinces, 1948

NOTE.—Values are mainly at wholesale prices.

Region	1947 <sup>r</sup>		1948		P.C. Increase 1948 over 1947
	Amount	P.C. of Total	Amount	P.C. of Total	
	\$		\$		
Maritime Provinces.....	4,286,830	3.5	5,461,031	3.2	+27.4
Quebec.....	11,361,856	9.3	14,906,555	8.7	+31.2
Ontario.....	28,036,903	22.9	38,453,369	22.5	+37.2
Manitoba.....	15,583,121	12.7	23,369,284	13.7	+50.0
Saskatchewan.....	33,382,699	27.3	46,505,877	27.3	+39.3
Alberta.....	25,953,168	21.2	36,748,138	21.5	+41.6
British Columbia.....	3,790,165	3.1	5,221,816	3.1	+37.8
<b>Totals.....</b>	<b>122,394,742</b>	<b>100.0</b>	<b>170,666,070</b>	<b>100.0</b>	<b>+39.4</b>

Separate figures by individual types of equipment are also compiled and sales for the major groups are presented in Table 26.

26.—Sales of New Farm Machinery and Equipment by Types, 1947 and 1948

Type of Equipment	Canada			Prairie Provinces			
	1947	1948	P.C. Change 1948 over 1947	1947	1948	P.C. Change 1948 over 1947	1948 as P.C. of Total
	\$	\$		\$	\$		
Planting, seeding and fertilizing.....	5,083,346	7,023,481	+38.2	2,571,277	3,690,859	+43.5	52.6
Ploughs.....	8,209,523	11,960,819	+45.7	6,197,334	9,182,512	+48.2	76.8
Tilling, cultivating and weeding....	6,306,254	9,337,442	+48.1	3,694,061	5,441,855	+47.3	58.3
Haying.....	5,687,865	9,351,056	+64.4	2,153,186	3,274,933	+52.1	35.0
Harvesting.....	23,178,637	36,046,613	+55.5	20,327,361	31,843,041	+56.7	88.3
Preparing crops for market or use....	5,125,784	5,904,211	+15.2	2,349,492	2,904,938	+23.6	49.2
Tractors and engines.....	42,223,078	63,065,437	+49.4	27,071,336	39,055,885	+44.3	61.9
Spraying and dusting equipment (orchard or garden).....	1,121,560	1,489,082	+32.8	73,631	341,319	1	22.9
Farm wagons, trucks and sleighs....	3,555,627	3,383,807	- 4.8	1,752,447	1,767,134	+ 0.8	52.2
Domestic water systems and pumps	5,167,081	5,800,797	+12.3	1,159,829	918,657	-20.8	15.8
Dairy machinery and equipment....	4,969,918	4,286,730	-13.7	940,070	1,054,535	+12.2	24.6
Barn equipment.....	1,851,558	1,944,834	+ 5.0	350,001	226,055	-35.4	11.6
Poultry farm equipment.....	721,922	474,806	-34.2	272,587	179,534	-34.1	37.8
Miscellaneous.....	2,972,432	2,808,792	- 5.5	1,500,470	1,242,703	-17.2	44.2
Machinery attachments.....	6,220,137	7,788,163	+25.2	4,505,906	5,499,339	+22.0	70.6
<b>Totals, All Types.....</b>	<b>122,394,742</b>	<b>170,666,070</b>	<b>+39.4</b>	<b>74,918,988</b>	<b>106,623,299</b>	<b>+42.3</b>	<b>62.5</b>

<sup>1</sup> More than 100 p.c.

**Motion Picture Theatres.**—Motion picture theatres in Canada in 1948 numbered 1,950, an increase of 257 over the 1947 figure. Box office receipts were \$83,283,436, 6 p.c. above the 1947 volume of \$78,684,681; of this total, \$13,626,188 was paid in amusement taxes to the Federal and Provincial Governments.

Attendance at motion picture theatres during 1948 numbered 222,459,224, an increase of 1 p.c. over the 220,857,594 paid admissions of 1947. There were 12,916 paid employees in theatres, whose salaries and wages amounted to \$13,100,313, and 1,445 proprietors or family members.

The 1948 figures include 331 locations at which 16 m.m. equipment was used but exclude locations operated by itinerant exhibitors, drive-in theatres and theatres whose main revenue was derived from stage performances.

Receipts of 165 itinerant exhibitors amounted to \$428,303 with an additional \$58,768 being collected in taxes. Attendance numbered 1,532,820 at these performances given in 760 different towns.

Fifteen drive-in theatres with accommodation for 9,975 cars and attended by 1,595,947 persons were in operation in 1948. Gross receipts reported were \$789,765; of this amount, \$131,124 was paid in taxes.

The five theatres whose main source of revenue was stage productions had net receipts of \$1,196,016 in 1948 and collected an additional \$231,277 in taxes. Attendance at these theatres numbered 903,778. Comparable figures for the same five theatres in 1947 were: net receipts \$1,079,931 and attendance 702,611 persons.



**27.—Motion Picture Theatres and Receipts, by Provinces, 1930, 1941, 1947 and 1948**

NOTE.—Itinerant operators and legitimate operators are not included in these figures. Receipts are exclusive of amusement taxes.

Province	1930		1941		1947		1948 <sup>1</sup>	
	No.	Receipts	No.	Receipts	No.	Receipts	No.	Receipts
		\$		\$		\$		\$
Prince Edward Island.....	5	188,300	6	141,317	14	255,835	16	281,995
Nova Scotia.....	56	1,814,500	61	2,195,599	79	2,666,189	78	2,738,331
New Brunswick.....	39	1,093,400	39	1,102,265	58	1,771,036	58	1,993,102
Quebec.....	146	8,046,600	202	8,047,022	318	13,918,163	472	16,405,929
Ontario.....	323	15,806,700	410	18,757,372	473	27,043,278	523	29,523,367
Manitoba.....	73	2,712,800	111	2,475,940	146	3,526,223	146	3,709,443
Saskatchewan.....	104	1,977,300	145	1,673,313	254	2,914,301	263	3,220,907
Alberta.....	85	2,323,700	144	2,257,115	178	3,711,366	216	4,245,121
British Columbia.....	76	4,166,800	122	4,145,945	173	7,058,888	178	7,539,053
<b>Totals.....</b>	<b>907</b>	<b>38,130,100</b>	<b>1,240</b>	<b>40,795,897</b>	<b>1,693</b>	<b>62,865,279</b>	<b>1,950</b>	<b>69,657,248</b>

<sup>1</sup> Subject to revision. The figures for this year include for the first time 104 parish and community halls licensed in Quebec: receipts from these amounted to \$148,377 for 522,557 paid admissions and amount of taxes paid was \$13,639.

**Power Laundries, Cleaning and Dyeing Establishments.**—There were 244 power laundries and 530 dry cleaning and dyeing operating plants in Canada in 1947. These two industries provided services to the value of \$59,043,678 during the year. Of the total receipts, 51 p.c. was for dry cleaning, 41 p.c. for laundry, 4 p.c. for linen rentals and 4 p.c. for other services.

**28.—Summary Statistics of Power Laundries, 1930 and 1940-47, and by Provinces, 1947**

Year and Province	Plants	Em- ployees <sup>1</sup>	Salaries and Wages	Cost of Materials	Value of Work Performed
	No.	No.	\$	\$	\$
1930.....	242	9,100	8,140,177	1,571,747	16,283,555
1940.....	230	10,034	8,156,441	1,808,671	16,719,106
1941.....	237	11,844	10,120,662	2,348,740	19,816,895
1942.....	238	12,848	11,678,625	2,533,216	22,396,324
1943.....	225	13,209	12,338,829	2,530,464	23,436,392
1944.....	227	13,259	12,780,585	2,491,258	24,559,144
1945.....	217	13,232	13,651,511	2,717,027	25,463,096
1946.....	238	13,674	14,647,668	3,073,671	27,427,219
<b>1947</b>					
Prince Edward Island and Nova Scotia.....	16	492	491,905	89,614	915,287
New Brunswick.....	9	313	310,509	68,922	582,440
Quebec.....	51	3,908	4,721,298	1,096,163	9,075,918
Ontario.....	98	4,911	5,561,647	1,153,864	10,116,084
Manitoba.....	12	829	902,214	210,390	1,651,004
Saskatchewan.....	7	355	409,374	94,725	760,251
Alberta.....	11	804	940,326	197,304	1,811,234
British Columbia <sup>2</sup> .....	40	2,338	3,019,799	649,138	5,547,175
<b>Totals.....</b>	<b>244</b>	<b>13,950</b>	<b>16,357,072</b>	<b>3,560,120</b>	<b>30,459,393</b>

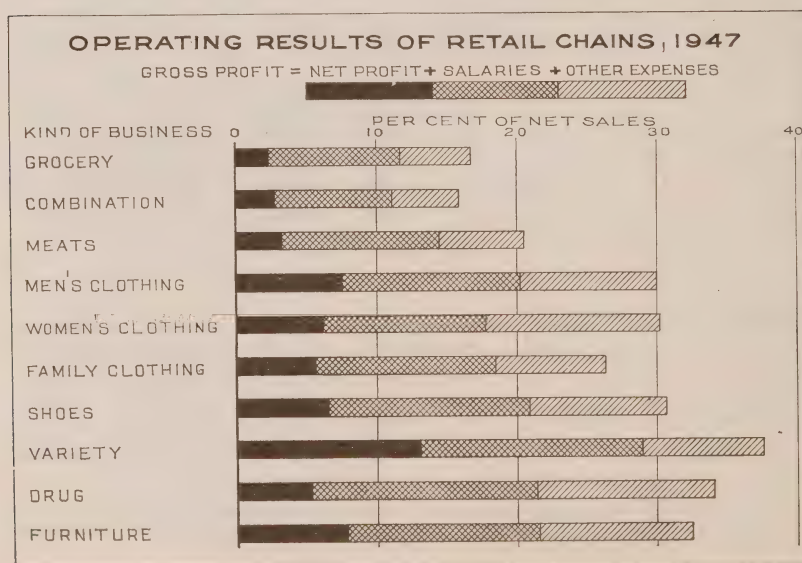
<sup>1</sup> Includes salaried employees and wage-earners. In addition, there were 71 male and 6 female proprietors who received salaries of \$166,425 and 91 male and 4 female proprietors who received no regular salary in 1947. <sup>2</sup> Figures for Yukon and Northwest Territories included.

**29.—Summary Statistics of Dry Cleaning and Dyeing Plants, 1930  
and 1940-47, and by Provinces, 1947**

Year and Province	Plants	Em- ployees <sup>1</sup>	Salaries and Wages	Cost of Materials	Value of Work Performed
	No.	No.	\$	\$	\$
1930.....	126	2,785	3,109,768	624,392	6,412,325
1940.....	300	5,474	4,956,024	1,156,454	10,056,735
1941.....	363	6,554	6,125,635	1,433,790	12,678,275
1942.....	365	6,990	6,969,167	1,453,234	14,353,064
1943.....	362	7,388	7,865,795	1,518,897	15,218,369
1944.....	399	7,732	8,212,917	1,694,284	16,886,713
1945.....	385	8,147	8,847,948	1,951,752	18,618,074
1946.....	452	9,880	11,613,011	2,503,762	23,720,940
<b>1947</b>					
Prince Edward Island and Nova Scotia.....	25	406	480,629	100,218	1,009,137
New Brunswick.....	21	334	358,690	92,683	817,275
Quebec.....	73	2,560	3,405,831	742,440	6,866,353
Ontario.....	250	4,876	6,430,892	1,332,448	13,036,255
Manitoba.....	26	960	1,230,843	282,115	2,267,682
Saskatchewan.....	34	432	536,386	113,261	1,088,474
Alberta.....	46	587	712,448	165,406	1,445,202
British Columbia <sup>2</sup> .....	55	751	988,745	212,935	2,053,907
<b>Totals.....</b>	<b>530</b>	<b>10,906</b>	<b>14,144,464</b>	<b>3,041,506</b>	<b>28,584,285</b>

<sup>1</sup> Includes salaried employees and wage-earners. In addition, there were 244 male and 15 female proprietors who received salaries of \$538,853 and 287 male and 23 female proprietors who received no regular salary in 1947. <sup>2</sup> Includes Yukon and Northwest Territories.

**Operating Results of Retail Chain Stores.**—Studies on operating results of retail-chain firms were undertaken for the first time in 1948, covering the year 1947. All firms in ten major trades were canvassed and results were published late in 1948. Statistics on gross and net profits in retail chains were collected during the 1930's but no detailed expenses were then available from the chain firms.



The first comprehensive study called for considerable detail of expenses, classified between head office and warehouse expense and store expense. Results were presented by chain-size groupings where there was a sufficient number of contributing firms and, where possible, an analysis of expenses between the functions of head office and warehouse and store expenses was also shown. The items of profit and expense were related to net sales and included the following: gross margin or profit; executive salaries; employees' salaries; employees' benefits; occupancy cost; taxes; repairs; depreciation; supplies used; heat, light and power; advertising; travelling expense; communication; bad debt loss; all other expense, income taxes (for incorporated firms); and net profit.

This study of retail chains and a similar one taken on the 1947 operations of certain major wholesale trades adds more data about the costs of distribution as provided by retailers and middlemen.

### 30.—Operating Ratios in Retail Chain Stores for Selected Kinds of Business, 1947

NOTE.—All figures except stock turnover are percentages of net sales.

Kind of Business	Cost of Goods Sold	Gross Profit	Total Operating Expenses <sup>1</sup>	Salaries and Wages <sup>2</sup>	Occupancy Expense <sup>3</sup>	Supplies Used	Net Profit Before Income Tax	Stock Turn-over Times per Year <sup>4</sup>
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	No.
Grocery.....	83.20	16.80	14.44	9.42	1.27	0.75	2.36	8.3
Combination.....	84.01	15.99	13.23	8.38	0.83	0.71	2.76	14.7
Meat.....	79.49	20.51	17.24	11.28	1.23	1.03	3.27	39.4
Men's clothing.....	70.05	29.95	22.41	12.66	2.92	1.03	7.54	3.8
Women's clothing.....	69.82	30.18	24.03	11.59	4.53	1.00	6.15	5.5
Family clothing.....	73.62	26.38	20.78	12.86	1.74	0.49	5.60	4.0
Shoes.....	69.25	30.75	24.23	14.55	4.19	0.78	6.52	2.6
Variety.....	62.33	37.67	24.63	15.91	3.97	0.82	13.04	5.2
Drug.....	65.82	34.18	28.83	16.07	4.69	0.69	5.35	4.0
Furniture.....	67.43	32.57	24.74	13.86	2.31	0.93	7.83	3.2

<sup>1</sup> Includes salaries and wages, occupancy expense, store supplies and all other expenses.

<sup>2</sup> Salaries

and wages include proprietors' salaries, executive salaries and employees' salaries and wages.

<sup>3</sup> Includes taxes, insurance, repairs, maintenance and depreciation on real estate, rentals paid for rented premises, and light, heat and power.

<sup>4</sup> Cost of goods sold divided by average of beginning and year-end inventories.

**Retail Consumer Credit.**—Studies on retail consumer credit were conducted by the Wartime Prices and Trade Board and results were compiled on five retail trades to June, 1945. In 1947, the Dominion Bureau of Statistics undertook the survey and results are now available on a quarterly basis. The sample of firms first used has been increased and improved and now covers 16 retail trades in which consumer credit purchasing is an important factor.

The combined results of these trades are presented in index form in Table 31 by three-month periods and show cash, instalment, and charge sales and instalment and charge accounts receivable at the end of each period. Sales are based on an average quarter of 1941 and receivables on the amount outstanding on the books of the sample firms at Dec. 31, 1941. The percentage composition of sales and receivables, and sales-receivables ratios and number of days credit outstanding are also shown.



These statistics portray the trend in cash and credit consumer purchasing at the retail level and measure the rise and fall in unpaid accounts on credit buying. They represent the average for respective trades by which the individual merchant may plan his own policy of extending credit.

### 31.—Quarterly Indexes and Percentage Composition of Retail Consumer Credit for Combined Trades, 1948 and 1949

(Index averages for 1941=100)

Period	Sales During Period					Accounts Receivable at End of Period		
	Cash	Instalment	Charge	Total Credit	Total Sales	Instalment	Charge	Total
INDEXES								
1948—Jan.—Mar.....	166.1	99.2	165.1	145.9	159.6	79.2	125.1	108.0
Apr.—June.....	202.5	122.2	187.4	168.4	190.9	85.2	137.2	117.3
July—Sept.....	203.9	109.1	183.9	162.1	188.4	91.5	142.4	123.3
Oct.—Dec.....	248.2	166.2	218.1	203.0	232.7	118.9	160.2	144.7
1949—Jan.—Mar.....	170.2	111.4	170.3	153.2	163.8	107.4	138.5	126.9
Apr.—June <sup>1</sup> .....	214.5	146.6	204.3	187.5	205.9	113.6	151.6	137.8
PERCENTAGE COMPOSITION								
1948—Jan.—Mar.....	62.9	7.2	29.9	37.1	100.0	31.8	68.2	100.0
Apr.—June.....	63.7	7.3	29.0	36.3	100.0	30.9	69.1	100.0
July—Sept.....	65.2	7.1	27.7	34.8	100.0	31.2	68.8	100.0
Oct.—Dec.....	64.2	7.7	28.1	35.8	100.0	31.4	68.6	100.0
1949—Jan.—Mar.....	62.9	8.1	29.0	37.1	100.0	33.2	66.8	100.0
Apr.—June <sup>1</sup> .....	63.3	8.0	28.7	36.7	100.0	32.5	67.5	100.0

<sup>1</sup> Subject to revision.

**Statistics of Finance Companies.**—In 1948, there were 97 finance companies in Canada that participated in the financing of consumers, commercial and industrial goods. The total value of this financing amounted to \$208,000,000 in 1948, an increase of more than 19 p.c. over 1947, and more than twice the total of \$100,000,000 reported in 1941. The financing of commercial and industrial goods, although still exceeded in 1948 by the financing of consumer goods, has increased in importance as an activity of finance companies since 1941. Consumers' goods accounted for 77 p.c. of total sales financing in 1941, but these items accounted for only 48 p.c. in 1947 and 59 p.c. in 1948.

Balances outstanding on retail instalment paper purchased by sales finance companies amounted to about \$107,000,000 in 1947 as compared with \$65,000,000 in 1941, a gain of 61 p.c. In the same period total paper financed had gained 74 p.c. By 1948 balances outstanding had reached \$130,000,000 or double the 1941 figure. The 1941-47 gain resulted from the increase in commercial and industrial outstandings, while the 1948 increase was due to the heavy activity in consumer goods, largely consumer durables which were again back on the markets in quantity.

Results of the surveys for 1941, 1947 and 1948 are given in Tables 32 and 33.

**32.—Retail Instalment Paper Purchased and Balances Outstanding, Dec. 31, 1941-48**

(Millions of Dollars)

Item	Paper Purchased			Balances Outstanding		
	1941	1947	1948	1941	1947	1948
Consumers' goods.....	77	84	122	49	48	70
New passenger cars.....	23	32	38	—	19	24
Used passenger cars.....	44	31	56	—	17	30
Other.....	10	21	28	—	12	16
Commercial and industrial.....	23	90	86	16	59	60
New commercial vehicles.....	11	33	36	—	21	25
Used commercial vehicles.....	7	14	19	—	8	11
Other.....	5	43	31	—	30	24
<b>Totals, Retail Financing.....</b>	<b>100</b>	<b>174</b>	<b>208</b>	<b>65</b>	<b>107</b>	<b>130</b>

**33.—Retail Instalment Paper Purchased and Year-end Balances Outstanding, by Provinces, 1941, 1947 and 1948**

(Millions of Dollars)

Province	Paper Purchased			Balances Outstanding		
	1941	1947	1948	1941	1947	1948
Maritime Provinces.....	7	11	15	4	7	10
Quebec.....	16	42	46	10	27	30
Ontario.....	48	69	87	30	42	53
Manitoba.....	5	9	10	3	5	6
Saskatchewan.....	6	7	7	5	4	4
Alberta.....	9	16	19	6	10	12
British Columbia.....	9	20	24	7	12	15
<b>Totals.....</b>	<b>100</b>	<b>174</b>	<b>208</b>	<b>65</b>	<b>107</b>	<b>130</b>

Automotive sales financing makes up the major portion of the activities of finance companies. In 1941, automobile financing was 85 p.c. of the total, while in 1947 and 1948 the percentages were 62 p.c. and 70 p.c., respectively.

Monthly statistics on the financing of automotive commodities have been kept for about 20 years and Table 34 shows the trend since 1939. Figures in this table do not in all cases agree with those given in Table 32 because of minor inconsistencies in reporting on different occasions.

**34.—Financing of Motor-Vehicle Sales by Finance Companies, 1939-48**

Year	New Vehicles		Used Vehicles		All Vehicles	
	No.	Financing	No.	Financing	No.	Financing
		\$		\$		\$
1939.....	37,320	27,852,627	115,787	34,916,119	153,107	62,768,746
1940.....	42,982	33,473,397	133,596	41,762,396	176,578	75,235,793
1941.....	41,032	34,887,591	141,387	49,829,192	182,419	84,716,783
1942.....	7,398	6,207,111	58,912	18,389,804	66,310	24,596,915
1943.....	1,077	1,254,878	38,496	13,637,688	39,573	14,892,566
1944.....	2,371	2,927,396	30,599	11,643,541	32,970	14,570,937
1945.....	3,630	4,934,456	24,356	9,502,726	27,986	14,437,182
1946.....	22,866	27,978,992	30,527	13,607,573	53,393	41,586,565
1947.....	46,700	65,422,230	72,167	43,322,528	118,867	108,744,758
1948.....	51,867	73,805,672	103,767	71,149,341	155,634	144,955,013

In the immediate post-war period, with cash reserves of consumers at a high level, a high percentage of car sales were made for cash. However, the proportion of vehicles financed has been gaining steadily as more and more vehicles become available. Table 35 shows a comparison of new passenger car sales and financing for specified years. In the first nine months of 1949 sales of new motor-vehicles financed was 28 p.c. of the total, a gain over the 1948 figure.

**35.—Sales and Financing of New Motor-Vehicles (Passenger and Commercial), Selected Years, 1933-48**

Year	Vehicles Sold	Vehicles Financed	P.C. of Total Sales Financed		Average Financed Value
			Number	Value	
	No.	No.			\$
1933.....	45,332	15,880	35.0	22.1	632
1935.....	101,461	31,950	31.5	22.0	701
1937.....	144,441	56,247	38.9	27.3	723
1938.....	121,165	45,267	37.4	25.0	745
1939.....	114,747	37,320	32.5	22.1	746
1940.....	130,552	42,982	32.9	22.5	779
1941.....	118,082	41,032	34.7	23.0	850
1946.....	120,044	22,866	19.0	14.5	1,224
1947.....	230,255	46,700	20.3	15.7	1,401
1948.....	221,300	51,867	23.4	16.8	1,423

### Section 5.—The Co-operative Movement in Canada\*

For the crop year ended July 31, 1948, 2,249 co-operative business organizations reported on their operations. Membership recorded was 1,127,229 and total business amounted to \$780,084,955. These three figures are the highest reported since 1931. This year marks the first time that membership has been over 1,000,000 but it must be noted that in this figure there is much duplication since the same individual may and often does belong to more than one type of association.

The number of reporting co-operatives has increased since 1945 by over 400; total volume of business increased by \$195,000,000—an amount greater than the total business reported in 1938. During the same period sales value of farm products increased by \$116,000,000 and purchasing and distributing co-operatives reported an increase in sales volume amounting to \$76,000,000. In 1945, marketing volume was six times the business of the purchasing co-operatives and in 1948 this ratio had dropped to 4 to 1.

**Developments of Co-operatives, 1948-49.**—Evidence of growth and expansion among co-operatives can be noted from developments that took place in 1948.

Manitoba Pool Elevators acquired from a private company 20 country elevators in Manitoba, a feed grain plant at Portage la Prairie and a 3,500,000 bu. terminal at Port Arthur. As part payment a terminal of smaller capacity at Port Arthur was turned over to the private company and the remainder of the purchase price of these expanded facilities was provided by members' subscriptions.

Two instances of co-operatives moving into the field of manufacturing were reported. Interprovincial Co-operatives, Limited, began operating a bag factory in September, 1948, and at the beginning of 1949 regional wholesales were being supplied with bags from this co-operative-owned factory.

\* Prepared by J. E. O'Meara, Marketing Service, Economics Division, Department of Agriculture, Ottawa. The treatment of credit unions that formerly appeared here has been transferred to the Currency and Banking Chapter, see p. 1079.



The Saskatchewan Wheat Pool opened a new flour mill at Saskatoon. Built at a cost of \$3,500,000 this mill will have a capacity of 1,000 bbl. per day.

In the field of production certain co-operative wholesales have for the past few years owned and operated coal mines in Alberta. Recently, three western co-operative wholesales joined in the search for oil in western Canada and in August, 1948, the first co-operative oil well in Canada was brought in. Since that time seven more successful drillings have been made.

The Canadian Co-operative Implements, Limited, set up on a basis of membership through district associations and incorporated under federal charter, has now dissolved the district associations and has been incorporated under a special Act of the Province of Saskatchewan. This company is also registered in the other provinces where business is carried on. Its membership is now about 50,000 in the three Prairie Provinces. It distributes tractors, harvester combines, swathers, tiller combines, tractor mowers, disks, harrows, sleighs, wagon boxes, farm tools and hand implements. Machinery is sold through the local co-operative associations and direct to members when there is no local co-operative. Assembly is done at branches and service is provided by mobile field-service units equipped with all necessary tools and repair parts.

Another major reorganization among Canadian co-operatives took place in December, 1948, when the United Farmers' Co-operative Company, Limited, became United Co-operatives of Ontario. This organization has been the leading farm marketing and supply co-operative in Ontario since 1914. Organized first on a direct individual membership basis the new co-operative is now owned by its local associations.

Interprovincial Co-operatives, Limited, is a federation of eight Canadian regional wholesales, and was organized to consolidate the buying for regional member wholesales of all merchandise handled or arranged for. It may acquire and operate productive and manufacturing facilities and act as distributor for co-operative processing or manufacturing plants. In addition, it controls the "Co-op" label in Canada and safeguards the standards and specifications of goods sold under this label. For the year ended Oct. 31, 1948, Interprovincial Co-operatives, Limited, reported sales of nearly \$4,500,000.

**Marketing.**—The value of farm products marketed by co-operatives during the crop year ended July 31, 1948, amounted to \$616,347,477, an increase of \$37,709,263 over the total reported for the same period in 1947.

There has been very little change in the percentage of the main farm products in commercial trade handled by the co-operatives. In 1946-47 this change was estimated at 31 p.c. and for 1947-48 at 32 p.c. For the commodities concerned the percentages are as follows, with the previous year indicated in parentheses: dairy products, 22.6 (21.7); live stock, 18.5 (18.2); poultry and eggs, 18.6 (16.6); wool, 68.1 (72.9); grains, 56.2 (51.5); fruits and vegetables, 27.4 (32.1); maple products, 25.1 (11.7); tobacco, 99.0 (87.3); and honey, 6.0 (11.4).

Increases in sales of farm products were reported from all provinces except Nova Scotia, Ontario and Alberta. In Nova Scotia sales declined by over \$1,000,000, attributable to a smaller apple crop and to reduced prices for this commodity. The decrease in the Ontario volume of sales is the result of less complete returns compared with those of the previous year. More accurate reporting from Alberta resulted in lower figures for that Province as a whole since in the previous year sales values of some commodities were over-estimated. New Brunswick reported sales almost double the 1947 figure. This is accounted for by an increase in the

number of associations reporting; a rise in the prices for dairy products; and an increase in the numbers and prices of hogs marketed co-operatively. One new co-operative seed plant with a substantial volume was in operation for the first time during the year 1947-48.

**Merchandising.**—The reported sales volume of supplies and merchandise purchased by co-operatives for members and patrons amounted to \$157,874,045 in 1947-48 compared to \$127,001,488 in 1946-47—an increase of almost 24 p.c. The largest increase was noted in co-operatives handling food products, clothing, home furnishings and petroleum products. Farm machinery sales through co-operatives more than tripled. Feeds and fertilizer, the most important goods handled in terms of volume, increased in sales by approximately 25 p.c.

All provinces shared in the general increase in sales of merchandise with Quebec reporting an increase of about \$15,000,000. This, however, was the result of better coverage in that Province when over 100 purchasing co-operatives reported for the first time.

**Wholesaling.**—Every province, except Prince Edward Island, now has a provincial or regional wholesale that supplies the local co-operatives with farm requirements and consumer goods. These wholesales are federations of locals and are themselves federated into Interprovincial Co-operatives, Limited. In addition, seven are regional members of National Co-operatives, Incorporated, in the United States from which they obtain durable consumer and production goods such as washing-machines, radios, refrigerators, milking-machines, electric fences, batteries, tractor and automobile tires and other automotive accessories. Through Interprovincial Co-operatives, Limited, the provincial wholesales can obtain under a "Co-op" label salmon, jams, flour and other commodities such as twine, roofing, etc.

Ten co-operative wholesales reported for the year 1947-48. They served 1,650 member associations and reported total assets of \$17,395,214. Plant value, less allowance for depreciation, was \$3,941,515 and members' equity totalled \$7,683,100. Liabilities to members was only \$1,600,000 compared with liabilities to the public of \$9,712,114.

Total sales of merchandise during 1947-48 amounted to \$42,096,580 while the value of sales of farm products was \$52,316,972. The main product marketed was live stock with a sales value of \$26,301,943. The major items supplied to members by the wholesales were feeds and fertilizer, valued at approximately \$21,670,733. It is significant that while local co-operative retail stores reported sales of over \$37,000,000 in food products only \$3,700,000, or about 10 p.c., was supplied by the co-operative wholesales.

**Retailing.**—Total sales volume of co-operative retail stores (including branches) in Canada for the year 1947-48 was reported as \$74,687,177. Approximately 50 p.c. was accounted for by sales of food products while sales of feed and fertilizer ranked second in volume with sales of \$13,642,648. The number of stores reporting was 631, exclusive of branch outlets.

Sales of petroleum products through co-operatives amounted to \$7,879,409 and were made mainly in the three Prairie Provinces. Alberta alone reported sales of over \$3,000,000.

**Miscellaneous and Service Type Co-operatives.**—Reports were received from 68 service co-operatives and covered co-operative activity in transportation, medical services, automobile and electrical repairs, restaurants, boarding-houses,

funeral services, housing and recreation. Total membership was reported to be 19,049 and total revenue from services rendered amounted to \$1,737,966.

In addition, there are many co-operatively-owned community halls and recreation centres throughout Canada. In Saskatchewan there are community pastures, co-operative farms, machinery co-operatives and co-operatives for the production of sheep, hogs, honey and fur.

Many of Canada's telephone systems are classed as co-operatives and the Dominion Bureau of Statistics recorded 2,318 such systems in 1947-48 with a total investment of \$22,751,436.

### 36.—Summary Statistics of Co-operative Business Organizations, Crop Years Ended July 31, 1943-48

Year	Associa- tions	Places of Business	Patrons	Sales of Farm Products	Sales of Supplies	Total Business <sup>1</sup>
	No.	No.	No.	\$	\$	\$
1943.....	1,650	4,406	608,680	295,499,274	55,689,141	352,785,598
1944.....	1,792	4,534	719,080	459,798,798	65,508,771	527,855,540
1945.....	1,824	4,441	738,345	500,481,627	81,360,855	585,650,066
1946.....	1,953	4,488	922,928	454,564,927	95,603,311	554,329,652
1947.....	2,095	5,084	1,036,498	578,638,214	127,001,488	712,583,246
1948.....	2,249	5,423	1,195,372	616,347,477	157,874,045	780,084,955
	Value of Plant	Total Assets	Liabilities to the Public	Share- holders or Members	Members Equity	
	\$	\$	\$	No.	\$	
1943.....	36,866,861	186,634,839	124,264,085	585,826	62,370,754	
1944.....	40,664,827	203,047,911	130,556,373	690,967	72,491,538	
1945.....	43,048,326	171,128,184	87,354,033	739,804	83,774,151	
1946.....	46,775,158	163,467,434	71,012,260	926,863	92,455,174	
1947.....	53,027,212	168,195,387	71,403,750	982,990	96,791,637	
1948.....	75,009,655	201,603,705	89,381,360	1,127,229	121,222,345	

<sup>1</sup> Includes other revenue.

### 37.—Products Marketed, Merchandise and Supplies Handled by Co-operative Business Organizations, Crop Years Ended July 31, 1947 and 1948

Item	1947		1948	
	Associa- tions <sup>1</sup>	Value of Sales	Associa- tions <sup>1</sup>	Value of Sales
	No.	\$	No.	\$
<b>Marketing—</b>				
Dairy products.....	645	83,233,972	667	109,862,341
Fruits and vegetables.....	176	44,205,752	196	40,338,032
Grain and seed.....	96	283,262,461	82	290,773,952
Live stock.....	325	91,593,252	298	96,886,819
Eggs and poultry.....	269	26,034,954	356	31,591,753
Honey.....	8	517,544	7	550,888
Maple products.....	1	1,115,982	1	1,446,571
Tobacco.....	7	43,747,881	5	37,067,050
Wool.....	15	2,093,967	18	1,750,563
Fur.....	4	1,966,806	4	1,528,469
Lumber and wood.....	7	121,705	17	645,033
Miscellaneous.....	37	743,938	30	3,906,006
<b>Totals, Marketing.....</b>	<b>1,124</b>	<b>578,638,214</b>	<b>1,123</b>	<b>616,347,477</b>
<b>Merchandising—</b>				
Food products.....	489	27,933,952	636	37,263,142
Clothing and home furnishings.....	335	3,857,771	411	6,274,023
Petroleum products and auto accessories.....	616	14,671,057	717	20,005,875
Feed, fertilizer and spray material.....	947	53,438,346	1,096	66,405,993
Machinery and equipment.....	242	1,680,228	333	5,038,139
Coal, wood and building material.....	557	8,034,153	631	8,522,050
Miscellaneous.....	829	17,385,981	827	14,364,823
<b>Totals, Merchandising.....</b>	<b>1,548</b>	<b>127,001,488</b>	<b>1,592</b>	<b>157,874,045</b>
<b>Grand Totals.....</b>	<b>2,095</b>	<b>705,639,702</b>	<b>2,249</b>	<b>774,221,522</b>

<sup>1</sup> Duplication exists in this column since some associations market produce as well as handle supplies. Some market more than one product and some handle many of the supplies listed.



### 38.—Summary Statistics of Co-operative Business Organizations by Provinces, Crop Years Ended July 31, 1947 and 1948

Province	Associa- tions	Shareholders or Members	Sales of Products	Sales of Merchandise	Total Business <sup>1</sup>
	No.	No.	\$	\$	\$
Prince Edward Island....1947	20	6,254	2,425,352	963,278	3,460,836
.....1948	24	7,293	2,896,602	1,653,304	4,571,223
Nova Scotia.....1947	96	13,122	8,548,552	10,052,728	18,685,973
.....1948	116	23,215	6,428,159	12,418,411	18,995,070
New Brunswick.....1947	57	12,203	2,543,210	5,219,960	7,802,231
.....1948	71	13,286	5,477,864	6,432,559	12,004,483
Quebec.....1947	590	56,694	50,493,314	25,208,856	75,712,503
.....1948	707	80,620	56,355,458	40,210,158	96,596,847
Ontario.....1947	402	74,920	92,509,241	32,555,933	128,122,831
.....1948	369	75,334	87,710,067	29,678,240	118,647,838
Manitoba.....1947	108	157,822	51,765,141	9,820,607	62,190,862
.....1948	141	174,541	58,702,872	12,470,716	71,508,373
Saskatchewan.....1947	545	370,937	172,544,516	21,723,140	195,121,578
.....1948	540	401,863	176,464,361	25,710,178	203,935,776
Alberta.....1947	169	218,217	116,529,637	10,257,756	127,685,241
.....1948	162	208,991	113,803,328	13,772,031	128,425,429
British Columbia.....1947	102	33,255	37,041,213	8,491,384	46,641,954
.....1948	112	40,101	42,585,761	10,396,532	54,220,516
Interprovincial.....1947	6	39,566	44,238,038	2,707,846	47,159,237
.....1948	7	101,985	65,923,005	5,131,916	71,179,400
<b>Totals.....1947</b>	<b>2,095</b>	<b>982,990</b>	<b>578,638,214</b>	<b>127,001,488</b>	<b>712,583,246</b>
<b>.....1948</b>	<b>2,249</b>	<b>1,127,229</b>	<b>616,347,477</b>	<b>157,874,045</b>	<b>780,084,955</b>

<sup>1</sup> Includes other revenue.

**Co-operative Insurance.**—Farmers' mutual fire insurance companies are the oldest form of co-operative insurance in Canada. Net admitted assets for 1947 were \$22,300,000, net amount of insurance carried was \$1,835,000,000 and net claims paid in 1947 amounted to \$5,284,544.

The Co-operative Life Insurance Company obtained a Federal charter in 1947 and extended its operations into Ontario, Manitoba, Saskatchewan and Alberta and has applied for a licence to operate in New Brunswick. As at Dec. 31, 1948, insurance in force totalled \$17,327,351.

**Fishermen's Co-operatives.**—Co-operative marketing of fish was reported by 87 associations during 1947-48. These associations are located mainly in the Maritime Provinces and Quebec but there are indications of interest in co-operative organization among fishermen who operate on inland waters in Ontario, Manitoba and Saskatchewan.

Total membership in the reporting fishermen's co-operatives was 12,766 and the value of fish sold was \$14,940,017. Most fishermen's co-operatives also handle gear, bait, etc., but on the Pacific coast the provision of consumer goods to members is a considerable item. Reported sales value of supplies sold during 1947-48 amounted to \$1,979,379.

**The Co-operative Union of Canada.**—Organized for the protection and promotion of the co-operative movement, the Co-operative Union of Canada celebrated its 40th anniversary in March, 1949.

It is organized on a basis of local unions in each province and its statistical summary for the year 1947-48 reported a membership of 922 associations representing a total individual membership of 628,745 and business amounting to \$472,954,035.

Le Conseil Canadien de la Coopération represents in a similar manner French-speaking co-operators throughout the country and has provincial sections organized in several provinces.

### Section 6.—Food Consumption\*

**Consumption of Major Foods.**—A study of consumption of the major foods was undertaken during the war years by the Agricultural Division of the Bureau of Statistics in recognition of the national and international significance of such information. While data on total consumption of certain commodities such as wheat, alcoholic beverages, meats, etc., have been available for a considerable period, it was found necessary to establish a per capita level of consumption of a wide range of products on a comparable basis.

The figures represent available supplies including production and imports, adjusted for change of stocks, exports, marketing losses and industrial uses. All calculations have been made at the retail stage of distribution, except meats for which the figures are worked out at the wholesale stage. The amounts of food actually eaten would be somewhat lower than indicated because of losses and waste occurring after the products reached the hands of the consumer. It should also be pointed out that there are minor discrepancies in certain of the figures since statistics of storage stocks in the hands of retailers and consumers were not available. In the main, however, the figures represent the best summary of food consumption data that has been compiled for Canada.

All basic foods have been classified under 13 main commodity groups. Totals for each group have been computed using common denominators for the group, as for example: milk solids (dry weight) in the case of the dairy-products group; fat content in the case of fats and oils; and fresh equivalent in the case of fruits. All foods have been included in their basic form, that is, as flour, fat, sugar, etc., rather than in more highly manufactured forms.

The series in Table 39 represents the official estimates of yearly supplies of food moving into consumption, expressed in pounds per capita, for the years 1935-39 as an average for comparison with the post-war years 1947 and 1948. (The estimates for 1948 are subject to revision.)

\* Prepared in the Agriculture Division, Dominion Bureau of Statistics.

#### 39.—Per Capita Supplies of Food Moving into Consumption, 1947 and 1948, with Averages, 1935-39

NOTE.—Many figures in this table have been revised since the publication of the 1947 Year Book, due to the regrouping of component items of certain groups.

Supplies of Food	Pounds per Capita per Annum			Percentages of 1935-39 Average	
	1935-39	1947	1948 <sup>1</sup>	1947	1948 <sup>1</sup>
<b>Cereals—</b>					
Flour (including rye flour)..... Retail wt.	184.8	159.2	152.0	86.1	82.3
Oatmeal and rolled oats..... "	7.3	6.4	5.5	87.7	75.3
Pot and pearl barley..... "	0.3	0.5	0.2	166.7	66.7
Corn meal and flour..... "	1.4	0.2	0.5	14.3	35.7
Buckwheat flour..... "	0.2	0.1	0.1	50.0	50.0
Rice..... "	4.3	3.0	1.3	69.8	30.2
Breakfast food..... "	7.4	7.6	5.9	102.7	79.7
<b>Totals, Cereals..... "</b>	<b>205.7</b>	<b>177.0</b>	<b>165.5</b>	<b>86.0</b>	<b>80.5</b>

<sup>1</sup> 1948 figures subject to revision.

**39.—Per Capita Supplies of Food Moving into Consumption, 1947 and 1948,  
with Averages, 1935-39—continued**

Supplies of Food	Pounds per Capita per Annum			Percentages of 1935-39 Average	
	1935-39	1947	1948 <sup>1</sup>	1947	1948 <sup>1</sup>
<b>Potatoes—</b>					
Potatoes, white.....Retail wt.	192.3	172.9	190.5	89.9	99.1
Potatoes, sweet....."	0.6	0.7	0.2	116.7	33.3
<b>Totals, Potatoes.....</b>	<b>192.9</b>	<b>173.6</b>	<b>190.7</b>	<b>90.0</b>	<b>98.9</b>
<b>Sugars and Syrups—</b>					
Sugar.....Refined wt.	94.7	89.0	98.1	94.0	103.6
Maple sugar.....Retail wt.	1.8	2.4	1.2	133.3	66.7
Other....."	11.9	13.9	13.3	116.8	111.8
<b>Totals, Sugar and Syrups.....Sugar content</b>	<b>104.0</b>	<b>100.2</b>	<b>108.0</b>	<b>96.3</b>	<b>103.8</b>
<b>Pulses and Nuts—</b>					
Dry beans.....Retail wt.	3.7	4.8	5.3	129.7	143.2
Dry peas....."	5.7	4.6	3.4	80.7	59.6
Peanuts.....Shelled wt.	2.2	3.2	4.8	145.5	218.2
Tree nuts....."	1.1	0.8	0.8	72.7	72.7
Soybean flour.....Retail wt.	..	0.6	0.6	...	...
Cocoa.....Green beans	3.7	2.5	2.5	67.6	67.6
<b>Totals, Pulses and Nuts.....Retail wt. incl. shelled wt. of nuts</b>	<b>14.5</b>	<b>15.2</b>	<b>16.1</b>	<b>104.8</b>	<b>111.0</b>
<b>Fruit—</b>					
Tomatoes and Citrus Fruit—					
Tomatoes, fresh.....Retail wt.	15.4	15.9	18.1	103.2	117.5
Tomato products.....Net wt. canned	10.0	14.9	18.4	149.0	184.0
Citrus fruit, fresh.....Retail wt.	25.1	41.8	39.3	166.5	156.6
Citrus fruit, canned.....Net wt. canned	0.5	8.1	5.7	1,620.0	1,140.0
Other Fruit—					
Fresh.....Retail wt.	40.5	60.4	47.8	149.1	118.0
Canned.....Net wt. canned	6.3	10.2	8.8	161.9	139.7
Dried.....Processed wt.	8.3	10.0	7.4	120.5	89.2
Juice.....Net wt. canned	..	2.0	2.6	...	...
Frozen.....Retail wt.	0.2	0.3	0.3	150.0	150.0
<b>Totals, Fruit.....Fresh equiv.</b>	<b>138.7</b>	<b>212.3</b>	<b>191.2</b>	<b>153.1</b>	<b>137.9</b>
<b>Starch.....Retail wt.</b>	<b>2.5</b>	<b>2.7</b>	<b>2.7</b>	<b>108.0</b>	<b>108.0</b>
<b>Vegetables—</b>					
Fresh—					
Cabbage and greens.....Retail wt.	16.2	18.9	19.7	116.7	121.6
Carrots....."	15.4	12.2	10.6	79.2	68.8
Legumes....."	6.2	2.8	2.2	45.2	35.5
Other....."	29.8	32.5	30.6	109.1	102.7
Canned.....Net wt. canned	10.8	18.6	16.8	172.2	155.6
Frozen.....Retail wt.	..	0.4	0.3	...	...
<b>Totals, Vegetables.....Fresh equiv.</b>	<b>78.4</b>	<b>85.4</b>	<b>80.2</b>	<b>108.9</b>	<b>102.3</b>
<b>Oils and Fats—</b>					
Lard.....Retail wt.	3.9	7.2	6.8	184.6	174.4
Shortening....."	10.6	..	..	...	...
Other oils and fats....."	1.8	..	..	...	...
Butter....."	31.0	28.0	28.6	90.3	92.3
<b>Totals, Oils and Fats.....Fat content</b>	<b>41.4</b>	<b>..</b>	<b>..</b>	<b>...</b>	<b>...</b>

<sup>1</sup> 1948 figures subject to revision.



**39.—Per Capita Supplies of Food Moving into Consumption, 1947 and 1948,  
with Averages, 1935-39—concluded**

Supplies of Food	Pounds per Capita per Annum			Percentages of 1935-39 Average	
	1935-39	1947	1948 <sup>1</sup>	1947	1948 <sup>1</sup>
<b>Meat—</b>					
Pork.....Carcass wt.	39.9	52.7	54.2	132.1	135.8
Beef....."	54.7	67.7	58.0	123.8	106.0
Veal....."	10.5	9.6	10.9	91.4	103.8
Mutton and lamb....."	5.6	4.8	3.5	85.7	62.5
Offal.....Edible wt.	5.8	6.5	6.0	112.1	103.4
Canned.....Net wt. canned	1.4	3.5	2.0	250.0	142.9
<b>Totals, Meats.....Carcass wt.</b>	<b>118.4</b>	<b>146.0</b>	<b>135.3</b>	<b>123.3</b>	<b>114.3</b>
<b>Poultry and Fish—</b>					
Hens and chickens.....Retail wt., dressed	15.6	21.2	15.8	135.9	101.3
Other poultry....."	2.8	3.6	3.3	128.6	117.9
Shell fish.....Fresh, edible wt.	0.4	0.2	0.3	50.0	75.0
Fish, (other) fresh, frozen and cured.....Filleted wt.	8.8	7.1	7.1	80.7	80.7
Fish, canned.....Net wt. canned	2.7	4.2	4.7	155.6	174.1
<b>Totals, Poultry and Fish.....Edible wt.</b>	<b>22.4</b>	<b>25.6</b>	<b>23.0</b>	<b>114.3</b>	<b>102.7</b>
<b>Eggs.....Fresh egg equiv.</b>	<b>30.7</b>	<b>36.1</b>	<b>35.1</b>	<b>117.6</b>	<b>114.3</b>
<b>Milk and Cheese—</b>					
Cheddar cheese.....Retail wt.	3.4	4.9	3.3	144.1	97.1
Other cheese....."	0.3	0.4	0.3	133.3	100.0
Cottage cheese....."	0.1	0.4	0.4	400.0	400.0
Evaporated whole milk....."	6.1	14.5	15.5	237.7	254.1
Condensed whole milk....."	0.6	1.0	1.0	166.7	166.7
Whole milk powder....."	0.1	0.8	0.8	80.0	80.0
Condensed skim milk....."	0.4	0.3	0.4	75.0	100.0
Skim milk powder....."	1.8	3.0	2.5	166.7	138.9
Evaporated skim milk....."	0.1	0.3	0.4	300.0	400.0
Condensed buttermilk....."	0.1	0.3	0.2	300.0	200.0
Milk in ice cream....."	13.0	26.6	27.9	204.6	214.6
Powdered buttermilk....."	—	0.3	0.4	...	...
Fluid whole milk....."	438.7	457.8	426.1	104.4	97.1
<b>Totals, Milk and Cheese.....Milk Solids</b>	<b>55.3</b>	<b>67.2</b>	<b>62.5</b>	<b>121.5</b>	<b>113.0</b>
<b>Beverages—</b>					
Tea.....Primary					
.....distribution wt.	3.5	3.6	2.7	102.9	77.1
Coffee.....Green beans	3.7	4.1	6.8	110.8	183.8
<b>Totals, Beverages.....Primary</b>	<b>7.2</b>	<b>7.7</b>	<b>9.5</b>	<b>106.9</b>	<b>131.9</b>
<b>.....distribution wt.</b>					

<sup>1</sup> 1948 figures subject to revision.<sup>2</sup> Includes farm-made cheese.

**Consumption of Meats.**—The supply, distribution and per capita consumption of meats and lard are given in detail in Table 40. The per capita estimates represent the consumption of the civilian population only. In order to arrive at a proper comparison of meat consumption during 1940-45 with the years before the War, figures of supply were revised to compensate for amounts of meat used for non-civilian purposes. These deductions included purchases by the Department of Munitions and Supply for the Army, Navy and Air Force, supplies for ships' stores, Red Cross parcels and other similar uses.

The Canadian population figures used to arrive at the per capita consumption estimates were also adjusted for the members of the Armed Forces serving outside Canada and living in barracks in Canada. All estimates in Table 40 are on a carcass weight basis except canned meats which are in terms of the product.

### 40.—Supply, Distribution and Civilian Consumption of Meats and Lard, 1945-48, with Averages, 1935-39

Meats and Lard	Average 1935-39	1945	1946	1947	1948 <sup>1</sup>
<b>Beef—</b>					
Animals slaughtered in Canada..... '000	1,347.0	2,420.1	2,266.3	2,100.6	1,953.5
Estimated dressed weight <sup>2</sup> ..... '000 lb.	618,556	1,119,662	1,053,339	962,801	891,688
On hand, Jan. 1..... "	22,684	31,831	40,842	30,642	43,154
Imports <sup>3</sup> ..... "	158 <sup>4</sup>	2	6	8	8
Totals, Supply..... "	641,398	1,151,495	1,094,187	993,451	934,850
Exports <sup>5</sup> ..... "	10,899	194,754	136,063	48,838	127,543
Used for canning..... "	1,406	116,302	88,480	49,580	25,480
On hand, Dec. 31..... "	24,040	40,842	30,642	43,154	35,196
Used by non-civilians..... "	—	65,000	18,218	—	—
TOTALS, CIVILIAN CONSUMPTION..... "	605,053	734,597	820,784	851,879	746,631
Civilian consumption per capita..... lb.	54.7	64.6	67.4	67.7	58.0
<b>Veal—</b>					
Animals slaughtered in Canada..... '000	1,333.6	1,493.8	1,464.8	1,393.3	1,554.1
Estimated dressed weight <sup>2</sup> ..... '000 lb.	116,372	141,391	132,022	126,426	142,390
On hand, Jan. 1..... "	3,452	5,155	5,348	3,438	6,624
Imports..... "	—	—	—	—	—
Totals, Supply..... "	119,824	146,546	137,370	129,864	149,014
Exports..... "	—	5	5	5	5
Used for canning..... "	22	2,195	5,459	2,893	1,527
On hand, Dec. 31..... "	3,785	5,348	3,438	6,624	6,791
Used by non-civilians..... "	—	4,000	481	—	—
TOTALS, CIVILIAN CONSUMPTION..... "	116,017	135,003	127,992	120,347	140,696
Civilian consumption per capita..... lb.	10.5	11.9	10.5	9.6	10.9
<b>Pork—</b>					
Animals slaughtered in Canada..... '000	5,165.1	8,683.7	7,896.3	7,586.0	7,441.1
Estimated dressed weight <sup>6</sup> ..... '000 lb.	620,522	1,111,607	993,471	972,089	941,406
On hand, Jan. 1..... "	34,511	48,852	33,072	38,705	57,585
Imports <sup>3</sup> ..... "	7,394	17	726	5,891	1,562
Totals, Supply..... "	662,427	1,160,476	1,027,269	1,016,685	1,000,553
Exports <sup>5</sup> ..... "	179,630	462,049	297,871	248,291	226,153
Used for canning..... "	4,495	46,116	52,143	48,072	44,308
On hand, Dec. 31..... "	37,863	33,072	38,705	57,585	31,732
Used by non-civilians..... "	—	40,000	6,506	—	—
TOTALS, CIVILIAN CONSUMPTION..... "	440,439	579,239	632,044	662,737	698,360
Civilian consumption per capita..... lb.	39.9	50.9	51.9	52.7	54.2
<b>Mutton and Lamb—</b>					
Animals slaughtered in Canada..... '000	1,543.0	1,634.1	1,673.5	1,554.1	1,148.1
Estimated dressed weight <sup>2</sup> ..... '000 lb.	61,417	69,008	71,249	67,257	47,494
On hand, Jan. 1..... "	6,190	6,930	7,778	7,072	9,153
Imports <sup>3</sup> ..... "	422	—	—	2	1
Totals, Supply..... "	68,029	75,938	79,027	74,331	56,648
Exports <sup>5</sup> ..... "	248	7,951	11,268	4,569	5,056
Used for canning..... "	37	1,563	1,303	393	379
On hand, Dec. 31..... "	5,965	7,778	7,072	9,153	6,341
Used by non-civilians..... "	—	4,800	578	—	—
TOTALS, CIVILIAN CONSUMPTION..... "	61,779	53,846	58,806	60,216	44,872
Civilian consumption per capita..... lb.	5.6	4.7	4.8	4.8	3.5
<b>Canned Meats—</b>					
Estimated production..... '000 lb.	5,624	199,017	191,016	99,850	62,724
Imports..... "	12,292	856	1	371	565
Change in stock <sup>7</sup> ..... "	—	+50,000 <sup>8</sup>	—	-27,000 <sup>8</sup>	+5,290
Totals, Supply..... "	17,916	149,673	191,017	127,221	57,999
Exports..... "	1,999	98,704	137,641	83,615	32,390
Used by non-civilians..... "	—	10,000	—	—	—
TOTALS, CIVILIAN CONSUMPTION..... "	15,917	40,969	53,376	43,606	25,609
Civilian consumption per capita..... lb.	1.4	3.6	4.4	3.5	2.0

For footnotes, see end of table.

**40.—Supply, Distribution and Civilian Consumption of Meats and Lard, 1945-48,  
with Averages, 1935-39—concluded**

Meats and Lard	Average 1935-39	1945	1946	1947	1948 <sup>1</sup>
<b>Offal—</b>					
Estimated production.....'000 lb.	64,611	107,096	99,503	91,768	90,083
Imports....."	..	—	—	2,623	30
Totals, Supply....."	64,611	107,096	99,503	94,391	90,113
Exports....."	..	10,839	5,264	4,060	6,860
Used for canning....."	583	25,550	27,191	9,033	5,513
Used by non-civilians....."	—	2,000	242	—	—
TOTALS, CIVILIAN CONSUMPTION....."	64,028	68,707	66,806	81,298	77,740
Civilian consumption per capita..... lb.	5.8	6.0	5.5	6.5	6.0
<b>Lard—</b>					
Estimated production <sup>2</sup> .....'000 lb.	63,237	94,328	79,023	81,123	88,380
On hand, Jan. 1....."	2,685	4,961	972	1,459	3,267
Imports....."	56	..	5,000 <sup>3</sup>	13,700 <sup>3</sup>	35
Totals, Supply....."	65,978	99,289	84,995	96,282	91,682
Exports....."	19,485	3,110	442	779	569
Used for canning....."	75	8,990	2,694	1,223	247
On hand, Dec. 31....."	2,963	972	1,459	3,267	3,331
Used by non-civilians....."	—	1,000	500	—	—
TOTALS, CIVILIAN CONSUMPTION....."	43,455	85,217	79,900	91,013	87,535
Civilian consumption per capita..... lb.	3.9	7.5	6.6	7.2	6.8

<sup>1</sup> 1948 figures subject to revision.    <sup>2</sup> Edible meat excluding offal.    <sup>3</sup> Basis cold dressed carcass weight.  
<sup>4</sup> Includes edible offal of beef and veal.    <sup>5</sup> Quantity small; included with beef.  
<sup>6</sup> Edible meat excluding fats and offal.    <sup>7</sup> The positive changes represent deductions from the available supply during a given year and therefore are subtracted; similarly, negative changes represent an increase in disappearance. Where no changes are indicated it is assumed that stocks at the beginning and end of period were the same.    <sup>8</sup> Estimated.    <sup>9</sup> Includes rendered pork fat.

### Section 7.—Interprovincial Freight Movements\*

Statistics on interprovincial trade are difficult to collect because there are no barriers to this trade. The only comprehensive statistics available are the loadings and unloadings of freight carried by the railways. The railway traffic is segregated into 76 classes of freight and the differences between loadings and unloadings are the imports and exports *by rail* for the respective provinces. Freight can, however, be imported by rail and exported by water, as is the case with western grain moved to the Ontario ports of Fort William and Port Arthur. Consequently, the statistics of Table 41 must not be taken as a measure of total interprovincial trade: they indicate only the interprovincial movement of railway freight which is one aspect of that trade.

\* Revised in the Transportation Division, Dominion Bureau of Statistics.



## 41.—Railway Revenue Freight Movement, by Provinces, 1947 and 1948

Province	Loaded		Received from Foreign Connections		Totals Originated <sup>1</sup>	
	1947	1948	1947	1948	1947	1948
	tons	tons	tons	tons	tons	tons
Prince Edward Island.....	397,280	326,103	—	—	397,280	326,103
Nova Scotia.....	7,251,878	10,445,111	112,920	136,904	7,364,798	10,582,015
New Brunswick.....	4,634,685	4,554,814	756,298	890,155	5,390,983	5,444,969
Quebec.....	19,593,257	20,178,284	9,269,944	9,341,393	28,863,201	29,519,677
Ontario.....	39,124,970	39,356,353	30,734,835	29,154,810	69,859,805	68,511,163
Manitoba.....	6,742,719	6,994,456	538,446	441,788	7,281,165	7,436,244
Saskatchewan.....	10,211,162	9,279,715	975,385	671,320	11,186,547	9,951,035
Alberta.....	12,200,411	12,313,280	257,122	322,496	12,457,533	12,635,776
British Columbia.....	8,912,745	9,387,878	991,315	937,549	9,904,060	10,325,427
<b>Totals.....</b>	<b>109,069,107</b>	<b>112,835,994</b>	<b>43,636,265</b>	<b>41,896,415</b>	<b>152,705,372</b>	<b>154,732,409</b>
	Unloaded		Delivered to Foreign Connections		Totals Terminated <sup>1</sup>	
	1947	1948	1947	1948	1947	1948
	tons	tons	tons	tons	tons	tons
Prince Edward Island.....	494,960	541,752	2,089	1,756	497,049	543,508
Nova Scotia.....	6,304,587	8,713,885	1,156,370	871,224	7,460,957	9,585,109
New Brunswick.....	3,778,270	3,746,170	3,227,421	2,885,063	7,005,691	6,631,233
Quebec.....	22,993,476	23,524,583	9,773,658	9,942,864	32,767,134	33,467,447
Ontario.....	49,435,354	49,540,852	24,951,842	24,820,039	74,387,196	74,360,891
Manitoba.....	7,348,134	7,508,256	1,084,384	1,529,251	8,432,518	9,037,507
Saskatchewan.....	5,801,133	5,623,154	58,914	469,164	5,860,047	6,092,318
Alberta.....	4,981,953	4,885,396	9,939	21,916	4,991,892	4,907,312
British Columbia.....	7,358,350	7,659,730	3,556,862	3,499,933	10,915,232	11,159,663
<b>Totals.....</b>	<b>108,496,217</b>	<b>111,743,778</b>	<b>43,821,499</b>	<b>44,041,210</b>	<b>152,317,716</b>	<b>155,784,988</b>

<sup>1</sup> Figures for freight originating and freight terminating do not agree because that freight which originates within a certain year does not all terminate within the same year. On the other hand, some that terminated in 1948, for instance, originated within the previous year.

## PART II.—GOVERNMENT AIDS TO AND CONTROL OF DOMESTIC TRADE

### Section 1.—Controls Affecting Distribution and Trade, 1948-49

A detailed account concerning controls affecting distribution and trade for 1948-49 will be found at pp. 983-985 of this edition.

### Section 2.—Trade Standards\*

The Standards Division of the Department of Trade and Commerce was created in the latter part of the fiscal year 1946-47, and provided for the consolidation of several important services and for the administration, under one director, of the Electricity Inspection Act, the Gas Inspection Act, the Electricity and Fluid Exportation Act, the Precious Metals Marking Act, and the Weights and Measures Act.

\* Prepared under the direction of R. W. MacLean, Director, Standards Division, Department of Trade and Commerce.

### **Subsection 1.—Commodity Standards**

On Nov. 26, 1949, Parliament passed the National Trade Mark and True Labelling Act which provides a framework for the development of the National Standard and true labelling, to circumvent public deception in advertising.

In brief, the use of the National Standard is voluntary, and compliance with commodity standards affects only those manufacturers who desire to use the national trade mark. In addition, where manufacturers descriptively label any commodity or container, it must be labelled accurately to avoid public deception. One such regulation of interest applies to the labelling of fur garments, and has established itself as a code of fair practice throughout the merchandising field.

Under the terms of the Precious Metals Marking Act, 1946 (c. 26), commodities composed of gold, silver or platinum may be marked with a quality mark which accurately describes the quality of the metal. Where such mark is used, a trade mark registered in Canada, or for which application for registration has been made, must also be applied. Gold-plated, silver-plated or platinum-plated articles may also be marked under certain conditions outlined in the Act. The inspection staff of the Standards Division is engaged in the examination of advertising matter, in verifying the quality of articles offered for sale and in checking the marks applied.

### **Subsection 2.—Weights and Measures**

The Weights and Measures Act prescribes the legal standards of weight and measure for use in Canada. Responsibilities under the Act require control of the type of all weighing and measuring devices used for commercial purposes, their periodic verification and surveillance directed towards the elimination of sales by short-weight or short-measure.

The number of inspections made in the fiscal year 1947-48 was 705,835, compared with 717,864 in 1946-47. The more important of these comprised the following: weighing machines, including scales of all kinds, 233,851; measuring machines for liquids, 66,427; other weights, 136,602; other measures, 268,955.

Total expenditures were \$500,262 in 1947-48 compared with \$454,702 in 1946-47. Total revenues were \$476,926 and \$453,482, respectively, for the two years.

### **Subsection 3.—Electricity and Gas Inspection**

Responsibilities of the Standards Division under the Electricity Inspection Act and the Gas Inspection Act comprise the control of the types of electricity meters and gas meters used throughout Canada, and the testing and stamping of every meter used for billing purposes, the object being to ensure the correct measurement of all electricity and gas sold. For the administration of these two Acts, Canada is divided into three divisions and twenty districts, and the total staff is 145. During the year ended Mar. 31, 1948, 805,394 electricity and gas meters were tested as compared with 628,148 in the preceding year. Revenue derived from the testing amounted to \$555,222 and expenditures to \$402,021.

## 1.—Electricity and Gas Meters in Use, Years Ended Mar. 31, 1939-48

Year	Electricity Meters	Gas Meters				Total
		Manu- factured	Natural	Acetylene	Petroleum Gas	
	No.	No.	No.	No.	No.	No.
1939.....	1,964,729	512,373	179,988	3	1,224	693,588
1940.....	2,037,563	514,170	185,499	3	1,184	700,856
1941.....	2,109,437	519,095	192,097	4	1,157	712,353
1942.....	2,181,945	524,669	197,781	4	1,196	723,650
1943.....	2,228,716	532,160	197,585	4	1,278	731,027
1944.....	2,268,500	540,240	201,522	4	1,392	743,158
1945.....	2,348,150	552,411	208,046	4	1,529	761,990
1946.....	2,459,672	550,949	215,330	4	1,651	767,934
1947.....	2,647,040	560,046	225,952	4	1,725	787,727
1948.....	2,746,685	587,629	217,068	3	1,046	805,746

The Electricity and Fluid Exportation Act came into force in 1907. Under its provisions no electric energy or fluid, whether liquid or gaseous, may be exported from Canada without a licence. Total exports of electric energy during the year ended Mar. 31, 1948, amounted to 2,025,189,526 kilowatt hours. There was also a small exportation of natural gas.

## Section 3.—Combinations in Restraint of Trade\*

Federal legislative measures for aiding and regulating trade include specific prohibitions of operation against the public interest by monopolies and similar commercial combinations. Monopolistic trade arrangements tending to eliminate competition in price, supply or quality of goods, and thereby to restrain trade unduly, are illegal under laws including the Combines Investigation Act and Section 498 of the Criminal Code. These laws are designed to promote reasonable competitive opportunities for the expansion of production, distribution and employment.

The first federal legislation in this field was enacted in 1889 and is still effective in amended form as Section 498 of the Criminal Code. Legislation providing for investigation of trusts or combines was first enacted in 1897 as part of the Customs Tariff Act. In 1910 a separate Combines Investigation Act was provided and further legislation was enacted in 1919 and 1923.

**The Combines Investigation Act.**—The Combines Investigation Act (R.S.C. 1927, c. 26, as amended in 1935, 1937 and 1946) provides for investigation of trade combinations, mergers, trusts and monopolies alleged to have been formed or operated in restraint of trade and to the detriment of the public. Organizations or commercial arrangements of this class which operate to the detriment of the public by enhancing prices, fixing common prices, restricting competition, limiting production or otherwise restraining or attempting to restrain trade, are defined in the Act as 'combines'. Participation in the formation or in the operation of a combine is an indictable offence, subject to penalties up to \$25,000 or two years' imprisonment. Investigations of alleged combines under the Act are conducted under the direction of the Combines Investigation Commissioner who reports to the Minister of Justice.

\* Revised by F. A. McGregor, Commissioner, Combines Investigation Act, Department of Justice, Ottawa.



The maintenance of a competitive economy in Canada as a matter of public policy was reaffirmed by Parliament in amendments made to the Combines Investigation Act in 1946, whereby some of the recommendations made in the report "Canada and International Cartels" were given legislative form. This legislation of 1946 authorized the Commissioner to receive and investigate complaints respecting practices alleged under Section 498 and 498A of the Criminal Code to be offences related to those covered by the Combines Investigation Act. It also authorized the Commissioner to proceed on his own initiative with an inquiry to determine whether a combine exists or is being formed. A similar provision had been contained in the legislation from 1923 to 1937. The amending Act of 1946 also empowered the Exchequer Court to prevent by court order certain uses of patents or trade marks in undue restraint of trade.

An alleged combine in the manufacture and sale of dental supplies was reported by the Commissioner in July, 1947. Eighteen member companies were indicted by a Grand Jury at Toronto, Ont., for conspiracy in undue restraint of trade. A verdict of not guilty was brought in on Mar. 18, 1948, on the ground that the evidence submitted by the Crown had not been adequately authenticated. The Crown appealed from this verdict to the Ontario Court of Appeal which dismissed the appeal on technical grounds in a judgment delivered on Feb. 28, 1949. In sustaining the ruling of the trial judge the Appeal Court held, among other things, that where no one else but companies are charged, the criminal acts charged must be brought home to the companies as their acts. The proof required in the case of companies, the Court ruled, differs somewhat from that required in the case of individuals and there must be evidence when an act by an officer, servant or agent of a company is relied on that he had authority from the company to act. As the judgment of the Ontario Court of Appeal raised very serious problems in the matter of proof of offences in undue restraint of trade the Minister of Justice directed that consideration be given to its effects by officials of the Department and Crown Counsel. It was subsequently announced that the Government was giving consideration to a draft Bill to amend the statute.

An investigation into the manufacture and sale of optical goods resulted in a finding in April, 1948, that a combine existed among certain manufacturers and wholesalers of optical goods, whereby a system of patent licensing had been instituted by the principal manufacturer under which minimum resale prices were established at each stage of distribution for all but a small proportion of the types of spectacles and their parts in popular demand. Other arrangements were entered into by the parties to the alleged combine to eliminate competition in other ways. Of the seven basic patents involved one has expired, four were held invalid and judgment in respect of two others had not been delivered at the end of September, 1949. The restrictive licensing arrangements described in the Commissioner's report as affecting retailers and manufacturers of optical goods, and some of those affecting wholesalers, were cancelled before the investigation was concluded. Immediately after publication of the report, all remaining licensing restrictions complained of were withdrawn by the companies concerned. The use of the trade marks also has been so modified as to remove the restrictive features.

A special commissioner was appointed to conduct an investigation into an alleged combine in the bread-baking industry in the Provinces of Saskatchewan, Alberta and British Columbia and a report submitted in November, 1948, stated that, in his opinion, five bread-baking companies operating in these Provinces and

two bakers' associations in Alberta and British Columbia were, contrary to the Act, parties to the formation or operation of a combine referred to as the Western Chain Bakeries. This Chain produced approximately three-quarters of the bread sold in the three provinces. Price competition had been lessened by agreements to fix wholesale and retail prices, to maintain resale prices to consumers, to provide for uniform tenders on military and other contracts, to fix the price of bread shipped across the Saskatchewan-Alberta boundary and to divide territory within the Province of Alberta. The Attorney General appointed counsel in Alberta to undertake prosecution of members of the alleged combine.

Several other major investigations at varying stages of completion were in progress in the autumn of 1949. Preliminary inquiries were disposed of in many cases and in other instances features of trade programs which, if put into effect, might have led to question under the Combines Investigation Act, were abandoned.

### Section 4.—Patents, Copyrights and Trade Marks\*

Letters patent are issued subject to the provisions of the Patent Act, 1935 (25-26 Geo. V., 1935, c. 32, as amended by 11 Geo. VI, 1947, c. 23), and applications for protection relating to patents should be addressed to the Commissioner of Patents, Ottawa.

#### 2.—Patents Applied for, Granted, etc., Years Ended Mar. 31, 1944-49

Item	1944	1945	1946	1947	1948	1949
Applications for patents..... No.	11,227	12,672	14,778	16,922	16,585	12,751
Patents granted..... "	7,803	7,084	7,412	6,590	7,175	7,959
Granted to Canadians..... "	480	486	495	520	580	570
Caveats granted..... "	223	302	421	438	313	331
Assignments..... "	7,857	8,265	8,964	11,063	13,656	13,325
Fees received, net..... \$	366,254	388,593	421,539	452,193	631,929	625,451

The number of Canadian patents granted increased fairly steadily each year from 4,522 at the beginning of the century to a peak of 12,542 in 1923 and has remained between 6,500 and 8,500 for the past ten years. Of the 7,959 patents granted in 1948-49, 5,964 or 75 p.c. were from inventors resident in the United States, 570 from Canadian residents, 978 from residents of the United Kingdom and other British Dominions, Colonies and Protectorates, while residents of Switzerland obtained 79, of France 122, of the Netherlands 41, of Sweden 77, of Germany 34 and of other countries 94.

The year ended Mar. 31, 1949, showed a marked increase over previous years in many classes of invention. Applications in the fields of chemistry and electricity were most numerous.

In the former, artificial resins, processes of polymerization, dyes, additives to oils for use as lubricants, plasticizers, insecticides and therapeutic substances were the subject matter of many applications. In electrical and radio communication the trend was towards pulse code modulation, colour television, wave guides, refinements in amplifiers, pulse transmission and telemetric systems. In electronics,

\* The material relating to patents and copyrights has been revised by J. T. Mitchell, Commissioner of Patents, and that relating to trade marks by J. P. McCaffrey, Registrar of Trade Marks, Ottawa.

development of computing machines and the use of high frequency heating continued. Applications for welding and heating, vapour lamps and starting means, arc quenching for circuit breakers, cables and electroplating were also numerous.

In metallurgy, invention was directed to new alloys and the processing of ores; in aeronautics, to automatic pilot controls and jet propulsion engines; in agricultural fields, to milking machines, hitches and tractor operated controls for farm machinery; in mining, to drilling muds, drill bits and mounts; in photography and optics to colour sensitizing emulsions, photometers and motion-picture apparatus; in material handling, to snow ploughs, conveyers, logging systems, excavating and loading vehicles; in building construction, to concrete blocks and slabs and prefabricated houses and in amusement and like devices, to games, toys, skis, hockey sticks and fish baits.

Increased attention has been directed to such diversified inventions as button-sewing machines, ash trays, chain saws, awnings, venetian blinds, display boxes, loose-leaf binders, windshield wipers, suction cleaners, fish-dressing machines, razor-blade dispensing packages, gauges, cigarette lighters, flashlights, pipe couplings, transmissions and others.

**Copyrights, Industrial Designs and Timber Marks.**—Registration of copyright is governed by R.S.C., 1927, c. 32, and applications for protection relating to copyrights should be addressed to the Commissioner of Patents, Ottawa.

The Copyright Act of 1921 (consolidated in R.S.C., 1927, c. 32) sets out, in Sect. 4. the qualifications for a copyright and, in Sect. 5, its duration: "Copyrights shall subsist in Canada... in every original literary, dramatic, musical and artistic work, if the author was, at the date of the making of the work, a British subject, a citizen or subject of a foreign country which has adhered to the Berne Convention and the additional Protocol... or resident within His Majesty's Dominions. The term for which the copyright shall subsist shall, except as otherwise expressly provided by this Act, be the life of the author and a period of fifty years after his death".

Copyright protection is extended to records, perforated rolls, cinematographic films, and other contrivances by means of which a work may be mechanically performed. The intention of the Act is to enable Canadian authors to obtain full copyright protection throughout all parts of His Majesty's Dominions, foreign countries of the Copyright Union, and the United States of America, as well as in Canada.

Protection of industrial designs and of timber marks is afforded under the Trade Marks and Design Act (R.S.C., 1927, c. 201) and amendments, and the Timber Marking Act (R.S.C., 1927, c. 198) and amendments. Registers of such designs and marks are kept under the Copyright Branch of the Patent Office, and information regarding them is published in the Canadian "Patent Office Record".

### 3.—Copyrights, Industrial Designs and Timber Marks Registered, Years Ended Mar. 31, 1943-48

Item	1943	1944	1945	1946	1947	1948
Copyrights registered.....No.	3,214	2,869	3,374	3,823	4,102	4,196
Industrial designs registered....."	177	266	326	525	769	730
Timber marks registered....."	9	8	10	5	15	7
Assignments registered....."	349	315	422	374	494	485
Fees received, net.....\$	14,252	15,405	16,847	17,818	18,838	17,880



**Trade Marks and Shop Cards.**—The Trade Marks Office, a Branch of the Department of the Secretary of State, is charged with the administration of the Unfair Competition Act, 1932, which repealed all previous Acts governing trade marks, and also with the Shop Cards Registration Act, which came into force on Sept. 1, 1938. Applications for registration of trade marks and shop cards should be addressed to the Registrar, Trade Marks Office, Ottawa.

A Register of Trade Marks is kept, in which, subject to the provisions of the Act, any person may cause to be recorded any trade mark he has adopted, and notification of any assignments, transmissions, disclaimers and judgments relating to such trade mark. In order that the public may be kept informed in the matter of trade-mark registration, a list of marks registered appears in the Canadian "Patent Office Record" which is issued weekly.

The Shop Cards Registration Act is designed to afford a measure of protection to organizations, such as trade unions, that formerly were able to register their particular designations as Union Labels under the Trade Mark and Design Act. Registrations under the Act may be renewed every 15 years.

#### 4.—Trade Marks and Shop Cards Registered, Years Ended Mar. 31, 1943-48

Item	1943	1944	1945	1946	1947	1948
Trade marks registered.....No.	1,185	1,164	1,144	1,952	2,703	2,992
Trade-mark registrations assigned.."	692	693	706	971	1,241	1,473
Trade-mark registrations renewed.."	365	627	696	898	1,206	2,302
Certified copies prepared....."	183	193	317	475	555	570
Shop cards registered....."	—	2	1	1	—	4
Fees received, net.....\$	42,385	48,556	76,089	107,448	127,037	133,707

### Section 5.—Bounties, Subsidies and Subventions

In 1930 the Federal Parliament passed legislation entitled "An Act to place Canadian Coal Used in the Manufacture of Iron or Steel on a Basis of Equality with Imported Coal" (20-21 Geo. V, c. 6). In implementation of this Act bounties paid in the calendar year 1948 amounted to \$352,514 on a tonnage of 712,150.

The Domestic Fuel Act 1927 (17-Geo. V, c. 52) was passed to encourage the production of domestic fuel from coal mined in Canada. Under its provisions arrangements were made for annual payments to manufacturers of coke who used Canadian mined coal to the extent of 70 p.c. of the total coal used. In the administration of this Act \$11,392 was paid in subsidies on 11,392 tons in the calendar year 1948. This Act has now expired and the amount noted is the final payment under the provisions of the Act.

Subventions were paid on movements of coal under assisted rates as provided by Parliament as follows:—

<i>Province</i>	<i>Tons</i>	<i>Amount</i>
	No.	\$
Nova Scotia.....	1,403,306	954,846
New Brunswick.....	724	724
Saskatchewan.....	31,787	25,366
Alberta and eastern British Columbia.....	282,608	635,253
British Columbia export and bunkers.....	5,728	4,296
TOTALS.....	1,724,153	1,620,485

## Section 6.—Control and Sale of Alcoholic Beverages\*

The provincial liquor control Acts have been framed to establish provincial monopolies of the retail sale of alcoholic beverages, with the practical elimination of private profit therefrom. Partial exception is made in the retail sale of beer by brewers, or others which certain provinces permit, while reserving regulative rights and taxing such sales heavily. The provincial monopoly extends to the retail sale and not to the manufacture of alcoholic beverages. The original liquor control Acts have been modified from time to time as deemed advisable.

During the war years, restrictions were placed on the manufacture, advertisement, importation and sale of alcoholic beverages. These are outlined at p. 586 of the 1946 Year Book.

The distilled liquor industry produces not only beverage spirits, but also industrial alcohol as (1) unmatured, denatured by distillers, used in anti-freeze and numerous other items, and (2) unmatured, non-denatured, used in chemical compounds, pharmaceutical preparations and vinegar. Production of denatured alcohol was 5,778,978 pf. gal. in 1948, a decrease of some 2,314,281 pf. gal. from 1947. Non-denatured industrial alcohol reached an abnormal production of 17,824,944 pf. gal. in 1944, due to war needs, but by 1948 production had declined to 3,300,794 pf. gal.

Beverage spirits produced and placed in bond for maturing totalled 16,853,384 pf. gal. in 1947, with 17,211,972 pf. gal. in 1948.

Materials used showed important changes. Wheat was the major item during the War but in 1948, due to restrictions resulting from world food problems, consumption declined to only 4,387,794 lb. from a peak of 402,535,232 lb. in 1944. Corn replaced wheat, increasing from 15,833,741 lb. in 1944 and 45,191,740 lb. in 1945 to 195,640,173 lb. in 1948. Wheat flour (alcomeal), introduced during the War and consumed to the extent of 77,268,410 lb. in 1944, ceased to be of importance.

**Net Revenue from Liquor Control.**—The provincial figures of net revenue shown in Table 5, include not only the net profits made by Liquor Control Boards or Commissions, but also additional amounts of revenue received for permits, licences, etc., sometimes paid direct to Provincial Governments. The Federal Government, for the year ended Mar. 31, 1948, also collected in excise duties, customs duties, excise taxes, licence fees, etc., \$84,944,648 on spirits; \$57,534,701 on malt and malt products and \$2,921,811 on wines.† Corresponding collections for the year ended Mar. 31, 1949, were: \$79,401,370 on spirits; \$59,693,050 on malt and malt products and \$2,639,966 on wines.

\* In the main this material has been abridged from the report "The Control and Sale of Alcoholic Beverages in Canada", Dominion Bureau of Statistics, Price 50 cents. This report gives an outline of federal and provincial legislation concerning the control and sale of alcoholic beverages.

† These figures do not include sales tax, details of which are not available for separate commodities.

### 5.—Total Net Revenue Received by the Provincial Governments from Liquor Control, by Provinces, 1940-48

NOTE.—These figures are for provincial fiscal years ended on the following dates: N.S., Nov. 30; N.B., Oct. 31; Que., Apr. 30, 1940, Mar. 31, 1941 (11 months), Mar. 31, 1942-48; Ont., Mar. 31; Man., Apr. 30, 1940-46, Mar. 31, 1947 (11 months), Mar. 31, 1948; Sask., Apr. 30, 1940-46, Mar. 31, 1947 (11 months), Mar. 31, 1948, Alta., Mar. 31; and B.C., Mar. 31.

Year	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
	\$	\$	\$	\$	\$	\$	\$	\$
1940.....	2,284,229	1,655,739	7,572,121	11,051,912	1,781,089	1,706,357	2,937,226	4,456,948
1941.....	3,358,235	2,220,308	7,270,810	12,294,175	2,056,253	1,941,185	3,207,627	4,841,482
1942.....	4,885,365	2,950,957	9,474,417	15,068,065	2,740,498	2,407,066	3,897,175	5,928,444
1943.....	5,613,367	3,054,932	12,332,540	18,546,295	3,738,980	3,030,953	5,050,216	8,145,795
1944.....	6,738,081	3,497,089	14,034,564	21,024,903	3,831,368	3,661,301	5,356,107	6,946,254
1945.....	7,428,911	4,247,301	17,120,638	19,181,266	4,379,365	4,162,775	6,026,112	7,881,497
1946.....	9,020,665	6,890,562	23,095,957	30,373,016	6,101,352	6,605,448	8,248,814	11,194,187
1947.....	8,245,687	6,879,632	29,715,052	34,998,052	6,527,122	8,104,620	9,705,075	14,725,990
1948.....	8,153,544	6,606,291	28,073,133	36,807,803	6,989,096	7,920,528	9,971,205	16,598,430

**Apparent Consumption of Alcoholic Beverages.**—Accurate measurement of the consumption of alcoholic beverages by Canadians is practically impossible. Temporary additions to the resident population through tourist travel are, at certain seasons, extremely large. In 1948, for example, more than 25,000,000 visitors crossed the international boundary into Canada. Sales of alcoholic beverages to certain of these visitors undoubtedly reached considerable proportions. Precise measurement is impossible since no separate record is kept of sales to non-residents of Canada.

In Tables 6, 7 and 8 an attempt is made to indicate the apparent consumption in Canada of spirits, beer and wine, respectively, on the basis of the quantities produced, imported, exported, etc. It should be noted that these figures take no account of increases or decreases in the quantities held in stock by the Boards or by licensees. For instance, the Boards may, in certain years, buy heavily to replenish stocks or create reserves; such purchases would unduly weight the consumption figures for those years.

Practically the total production of spirits is placed in bonded warehouses whence it is released for various purposes. The quantities shown in Table 6 as entered for consumption are released from warehouses, duty paid, presumably for consumption for beverage purposes in Canada.

Only a small part of the output of beer is placed in warehouses. The available supply, as shown in Table 7, is therefore made up of (1) production; (2) changes in warehouse stock; and (3) imports.

The apparent consumption of native wines as shown in Table 8 is obtainable by dividing the rates of excise tax into the total tax collections.



**6.—Apparent Consumption of Beverage Spirits, Years Ended Mar. 31, 1940-49**

NOTE.—Figures for the years 1924-39 are given at p. 532 of the 1941 Year Book.

Year	Entered for Consump- tion	Add Exports in Bond	Add Imports	Deduct Re-Exports of Imported Spirits	Deduct Total Domestic Exports	Apparent Consump- tion
	pf. gal.	pf. gal.	pf. gal.	pf. gal.	pf. gal.	pf. gal.
1940.....	2,032,987	1,876,964	1,612,906	38	1,704,410	3,818,409
1941.....	2,371,633	3,327,365	1,479,606	42	3,463,772	3,714,790
1942.....	2,944,391	2,096,392	1,890,192	3,077	2,079,458	4,348,440
1943.....	3,445,872	1	1,284,116	69	1	4,729,919
1944.....	2,620,297	1	823,422	3	1	3,443,716
1945.....	2,676,482	1	1,043,709	273	1	3,719,918
1946.....	4,087,690	1	1,775,935	113	1	5,863,512
1947.....	4,446,128	1	2,097,427	382	1	6,543,173
1948.....	4,632,506	1	2,691,302	3,420	1	7,320,388
1949.....	4,360,914	1	2,474,076	1,735	1	6,833,255

<sup>1</sup> The large quantities of non-potable alcohol produced and exported for war uses in the years 1943-45 necessitated a change in the method of estimating the consumption of beverage spirits. The exports in bond and the domestic exports do not now enter into the calculations. Details of the change are given in the Dominion Bureau of Statistics report "The Control and Sale of Alcohol Beverages in Canada".

**7.—Apparent Consumption of Beer, Years Ended Mar. 31, 1940-49**

NOTE.—Figures for the years 1924-39 are given at p. 533 of the 1941 Year Book.

Year	Production	Add Quantities Entered for Consump- tion from Warehouses	Add Imports	Deduct Quantities Placed in Warehouses	Deduct Domestic Exports	Deduct Re-Exports of Imported Goods	Apparent Consump- tion
	gal.	gal.	gal.	gal.	gal.	gal.	gal.
1940.....	66,496,129	646,399	92,873	753,067	192,612	32	66,289,690
1941.....	79,006,028	533,470	98,403	751,781	256,970	2	78,629,148
1942.....	101,081,682	755,456	86,122	6,777,839	5,639,946	—	89,505,475
1943.....	108,980,613	1,197,658	85,211	6,813,251	5,839,905	—	97,610,326
1944.....	104,062,427	726,817	61,634	7,536,054	6,604,977	—	90,709,847
1945.....	122,530,269	6,177,745	76,225	12,591,822	5,968,602	—	110,223,815
1946.....	138,941,170	2,596,574	26,550	6,910,528	4,567,667	—	130,086,099
1947.....	155,800,830	1,035,203	17,015	5,763,200	4,108,944	—	146,980,904
1948.....	173,201,842	3,368,130	36,662	6,839,460	4,024,332	—	165,742,842
1949.....	178,552,891	3,619,293	97,368	5,193,389	1,611,071	—	175,465,092

**8.—Apparent Consumption of Wines, Years Ended Mar. 31, 1940-49**

NOTE.—Figures for the years 1924-39 are given at p. 533 of the 1941 Year Book.

Year	Native	Imported			Apparent Consumption, Native and Imported
	Apparent Consumption	Imports	Less	Apparent Consumption	
			Re-Exports		
	gal.	gal.	gal.	gal.	gal.
1940.....	3,544,910	468,098	91	468,007	4,012,917
1941.....	4,310,295	502,354	35	502,319	4,812,614
1942.....	3,733,449	434,888	1,094	433,794	4,167,243
1943.....	4,192,903	434,699	35	434,664	4,627,567
1944.....	3,314,260	290,691	11,005	279,686	3,593,946
1945.....	3,409,303	303,153	—	303,153	3,712,456
1946.....	3,979,857	595,732	12	595,720	4,575,577
1947.....	4,655,734	928,664	—	928,664	5,584,398
1948.....	4,594,361	619,249	2	619,247	5,213,608
1949.....	4,020,542	690,679	235	690,444	4,710,986

### PART III.—COMMERCIAL FAILURES

According to Sect. 91 of the British North America Act, "the exclusive legislative authority of the Parliament of Canada" extends to bankruptcy and insolvency legislation, and an Insolvency Act (32-33 Vict., c. 16) was passed by the Federal Parliament in 1869, and applied to the four original provinces. This Act was renewed by c. 46 of the Statutes of 1874. In 1875 a new Insolvency Act (38 Vict., c. 16) applicable to the whole Dominion was passed, but was repealed in 1880. After this there was no federal legislation on the subject of bankruptcy until 1919. During the interval of nearly 40 years commercial failures were handled under provincial legislation, and the statistics relating to such failures during this period were compiled and published by two commercial agencies, R. G. Dun and Company and the Bradstreet Company. Statistics of commercial failures dealt with under the Dominion Bankruptcy Act of 1919 have been compiled and published by the Dominion Bureau of Statistics since 1920. (See pp. 895-896.)

The three Sections of this Part, although closely related as far as subject matter is concerned, cover different aspects of the field and the statistics presented in each Section are not comparable.

Statistics of industrial and commercial failures in Canada, given in Section 1, are compiled by Dun and Bradstreet, Incorporated. This mercantile agency is interested primarily in credit information, and it is not to be expected that their figures would be compiled on the same basis as those of the Dominion Bureau of Statistics or the Superintendent of Bankruptcy. These statistics include bankruptcies in general, insolvencies under provincial companies' Acts and such proceedings as bulk sales, bailiffs' sales, landlords' seizures, etc., when loss to creditors results. On the other hand the statistics do not include assignments of farmers (under the Farmers' Creditors Arrangement Act) or of wage-earners, so that, as a general rule, the totals run lower than those in Section 2. As pointed out, between 1875 and 1919 the agencies, now Dun and Bradstreet, Incorporated, were the only source of figures of commercial failures and their statistics have an added value because they present an unbroken historical series, though not on a comparable basis since 1934 (see text preceding Table 1). Dun and Bradstreet, Incorporated, have ceased to publish statistics of assets since 1940.

Section 2, on the other hand, is limited to bankruptcies and insolvencies made under federal legislation, such as the Bankruptcy Act (including the Farmers' Creditors Arrangement Act), the Winding Up Act and the Companies' Creditors Arrangement Act, but not failures, sales, or seizures carried out apart from such federal legislation. The Dominion Bureau of Statistics figures include failures of individuals such as wage-earners and farmers.

A word should be added about the value to be placed upon figures of assets and liabilities. Such values are estimates made by the debtor and, unfortunately, are not made uniformly. The human equation enters into them to a considerable degree and they must be accepted with this qualification.

Section 3 is limited to the administration of bankrupt estates by the Superintendent of Bankruptcy, under the Bankruptcy Act (including the Farmers' Creditors Arrangement Act). This Section, however, gives definite information on the amounts realized from the assets as established by debtors and indicates that values actually paid to creditors are invariably very much lower than such estimates alone would imply. It can, therefore, be assumed that this applies in even greater degree to the more extended fields covered in Sections 1 and 2.

## Section 1.—Industrial and Commercial Failures from Private Sources

A historical table giving failures for Canada and Newfoundland, by classes, for the years 1915 to 1935 is given at p. 969 of the 1936 Year Book. Early in 1936, Dun and Bradstreet, Incorporated, from whose reports these figures were taken, adopted a new method of classification. The principal changes consisted of setting up a new group of construction enterprises previously included in manufacturing and a new class for commercial service. Real estate companies, holding, and other financial companies and agents of various kinds, were omitted. These changes have had the effect of confining the failure records more to industrial and commercial lines of activity, and liabilities are reduced more in proportion to the number of failures since the companies eliminated usually ran high in indebtedness. The figures in Table 1, which are available back to 1934, are therefore not comparable with the earlier series and are for Canada exclusive of Newfoundland, which did not enter Confederation until 1949.

### 1.—Industrial and Commercial Failures in Canada, by Classes, 1940-47, and by Provinces, 1948

(From Dun and Bradstreet, Incorporated)

NOTE.—Figures for 1934-39 are given at p. 623 of the 1946 Year Book.

Year and Province	Manu- facturing		Wholesale Trade		Retail Trade		Con- struction		Commercial Service		Totals	
	No.	Lia- bilities	No.	Lia- bilities	No.	Lia- bilities	No.	Lia- bilities	No.	Lia- bilities	No.	Lia- bilities
		\$'000		\$'000		\$'000		\$'000		\$'000		\$'000
<b>Totals, 1940.....</b>	<b>197</b>	<b>3,482</b>	<b>72</b>	<b>1,128</b>	<b>774</b>	<b>3,949</b>	<b>56</b>	<b>569</b>	<b>59</b>	<b>450</b>	<b>1,158</b>	<b>9,578</b>
<b>Totals, 1941.....</b>	<b>130</b>	<b>2,419</b>	<b>42</b>	<b>539</b>	<b>614</b>	<b>3,118</b>	<b>55</b>	<b>519</b>	<b>41</b>	<b>364</b>	<b>882</b>	<b>6,959</b>
<b>Totals, 1942.....</b>	<b>87</b>	<b>3,630</b>	<b>33</b>	<b>516</b>	<b>393</b>	<b>2,499</b>	<b>61</b>	<b>526</b>	<b>35</b>	<b>173</b>	<b>609</b>	<b>7,344</b>
<b>Totals, 1943.....</b>	<b>36</b>	<b>2,357</b>	<b>7</b>	<b>137</b>	<b>96</b>	<b>500</b>	<b>32</b>	<b>519</b>	<b>15</b>	<b>121</b>	<b>186</b>	<b>3,634</b>
<b>Totals, 1944.....</b>	<b>33</b>	<b>1,042</b>	<b>12</b>	<b>242</b>	<b>33</b>	<b>514</b>	<b>15</b>	<b>265</b>	<b>3</b>	<b>56</b>	<b>96</b>	<b>2,119</b>
<b>Totals, 1945.....</b>	<b>37</b>	<b>1,511</b>	<b>7</b>	<b>246</b>	<b>26</b>	<b>250</b>	<b>20</b>	<b>240</b>	<b>5</b>	<b>58</b>	<b>95</b>	<b>2,305</b>
<b>Totals, 1946.....</b>	<b>41</b>	<b>2,684</b>	<b>19</b>	<b>421</b>	<b>41</b>	<b>451</b>	<b>21</b>	<b>231</b>	<b>8</b>	<b>216</b>	<b>130</b>	<b>4,003</b>
<b>Totals, 1947.....</b>	<b>126</b>	<b>3,815</b>	<b>42</b>	<b>1,225</b>	<b>84</b>	<b>882</b>	<b>36</b>	<b>941</b>	<b>16</b>	<b>365</b>	<b>304</b>	<b>7,228</b>
<b>1948</b>												
P. E. Island.....	—	—	—	—	—	—	—	—	—	—	—	—
Nova Scotia.....	1	57	1	22	3	26	—	—	—	—	5	105
New Brunswick.....	2	20	—	—	8	69	—	—	1	25	11	114
Quebec.....	102	4,183	42	1,048	126	1,480	31	664	23	392	324	7,767
Ontario.....	40	1,671	14	224	31	337	12	133	2	12	99	2,377
Manitoba.....	6	231	4	93	8	48	2	71	—	—	20	443
Saskatchewan.....	1	75	—	—	10	69	1	3	—	—	12	147
Alberta.....	1	158	—	—	4	49	—	—	1	20	6	227
British Columbia.....	5	339	1	8	8	200	2	28	—	—	16	575
<b>Totals, 1948.....</b>	<b>158</b>	<b>6,734</b>	<b>62</b>	<b>1,395</b>	<b>198</b>	<b>2,278</b>	<b>48</b>	<b>899</b>	<b>27</b>	<b>449</b>	<b>493</b>	<b>11,755</b>

In 1948, Quebec and Ontario accounted for 66 p.c. and 20 p.c., respectively, of the total failures. As regards liabilities, Quebec accounted for 66 p.c. of the total as compared with 20 p.c. registered for Ontario.

According to Dun and Bradstreet, Incorporated, the number of commercial failures during the war years 1939-45 showed a steady decrease year by year, and, whereas before the War the great majority of failures were in retail trading establishments, the proportion in that group also showed a steady decrease during those years. Since the end of the War, however, the number of failures has shown



substantial increases amounting to 134 p.c. in 1947 over 1946 and 62 p.c. in 1948 over 1947. Each group contributed to the advance in 1948, though over 60 p.c. of the increase was accounted for by retail trade.

## 2.—Industrial and Commercial Failures, by Divisions of Industry, 1946-48

(Source: Dun and Bradstreet, Incorporated)

NOTE.—Comparable figures for 1934-44 are given in the corresponding tables of previous Year Books.

Industry and Division	Failures			Liabilities		
	1946	1947	1948	1946	1947	1948
	No.	No.	No.	\$'000	\$'000	\$'000
<b>Manufacturing—</b>						
Foods.....	2	10	10	20	270	311
Textiles.....	4	13	17	102	309	849
Forest products.....	7	28	49	108	942	2,617
Paper, printing and publishing.....	2	3	6	126	60	81
Chemicals and drugs.....	2	4	11	99	24	546
Fuels.....	—	1	1	—	6	58
Leather and leather products.....	—	7	12	—	124	224
Stone, clay, glass and products.....	—	3	5	—	43	222
Iron and steel.....	2	4	8	909	301	519
Machinery.....	4	17	14	84	835	444
Transportation equipment.....	2	1	6	51	18	340
All other.....	16	35	19	1,185	883	523
<b>Totals, Manufacturing.....</b>	<b>41</b>	<b>126</b>	<b>158</b>	<b>2,684</b>	<b>3,815</b>	<b>6,734</b>
<b>Wholesale Trade—</b>						
Farm products, foods, groceries.....	5	6	11	156	292	240
Clothing and furnishings.....	—	—	1	—	—	2
Dry goods and textiles.....	—	3	4	—	27	49
Lumber, building materials, hardware.....	5	4	10	59	127	242
Chemicals and drugs.....	—	5	1	—	55	32
Fuels.....	—	1	—	—	30	—
Automotive products.....	—	—	1	—	—	14
Supply houses.....	—	—	—	—	—	—
All other.....	9	23	34	206	694	816
<b>Totals, Wholesale Trade.....</b>	<b>19</b>	<b>42</b>	<b>62</b>	<b>421</b>	<b>1,225</b>	<b>1,395</b>
<b>Retail Trade—</b>						
Foods.....	5	25	45	37	187	460
Farm supplies, general stores.....	8	8	18	70	158	236
General merchandise.....	1	2	6	3	12	30
Apparel.....	5	7	23	115	80	224
Furniture, household furniture.....	1	2	15	26	23	194
Lumber, building materials, hardware.....	3	5	16	21	84	247
Automotive products.....	4	18	31	72	119	464
Restaurants.....	6	5	18	44	16	218
Drugs.....	1	1	1	10	20	3
All other.....	7	11	25	53	183	202
<b>Totals, Retail Trade.....</b>	<b>41</b>	<b>84</b>	<b>198</b>	<b>451</b>	<b>882</b>	<b>2,278</b>
<b>Construction—</b>						
General contractors.....	13	20	32	186	642	740
Carpenters and builders.....	1	2	—	1	6	—
Building sub-contractors.....	7	14	14	44	293	92
Other contractors.....	—	—	2	—	—	67
<b>Totals, Construction.....</b>	<b>21</b>	<b>36</b>	<b>48</b>	<b>231</b>	<b>941</b>	<b>899</b>
<b>Commercial Service—</b>						
Cleaners and dyers, tailors.....	1	1	2	3	8	9
Haulage, buses, taxis, etc.....	4	5	11	203	208	193
Hotels.....	—	1	4	—	81	168
Laundries.....	1	1	1	5	14	10
Undertakers.....	—	1	—	—	26	—
All other.....	2	7	9	5	28	69
<b>Totals, Commercial Service.....</b>	<b>8</b>	<b>16</b>	<b>27</b>	<b>216</b>	<b>365</b>	<b>449</b>
<b>Grand Totals.....</b>	<b>130</b>	<b>304</b>	<b>493</b>	<b>4,003</b>	<b>7,228</b>	<b>11,755</b>

## Section 2.—Commercial Failures as Compiled by the Dominion Bureau of Statistics

Under the Bankruptcy and Winding Up Acts (R.S.C. 1927, cc. 11 and 213), certain documents relating to estates administered under these Acts have, since July, 1920, been forwarded to the Dominion Statistician for statistical analysis. However, changes in the Acts effective in 1923 affected the comparability of the figures for 1921 and 1922, the two earliest full years for which statistics were compiled. The series, therefore, begins with 1923, except for the analysis by branches of business, in which case 1924 was the first year in which statistics were compiled. The statistics of this Section cover all bankruptcies and insolvencies that come under federal legislation, including assignments of individuals and farmers.

### 3.—Commercial Failures, by Provinces, 1939-48

NOTE.—Figures for 1923-38 will be found at p. 570 of the 1942 Year Book.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1939.....	3	38	45	669	403	74	67	37	56	1,392
1940.....	3	26	12	622	362	36	46	31	35	1,173
1941.....	4	17	7	587	279	23	45	25	21	1,008
1942.....	2	9	8	456	192	16	29	11	14	737
1943.....	—	3	—	217	72	2	8	2	10	314
1944.....	—	2	—	209	29	1	5	3	11	260
1945.....	1	3	1	225	27	3	—	4	8	272
1946.....	—	3	2	236	20	1	—	4	12	278
1947.....	2	6	7	422	72	4	2	6	24	545
1948.....	1	9	13	613	116	8	4	8	41	813

### 4.—Commercial Failures, by Branches of Business, 1939-48

NOTE.—Figures for 1924-38 will be found at p. 570 of the 1942 Year Book.

Year	Trade	Manu- facturing	Agri- culture	Logging and Fishing	Mining	Con- struc- tion	Trans- port- ation and Public Utili- ties	Finance	Service	Not Classi- fied	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1939.....	664	210	108	6	18	80	22	12	197	75	1,392
1940.....	591	167	67	4	15	53	13	11	201	51	1,173
1941.....	482	132	34	2	14	64	13	8	188	71	1,008
1942.....	342	80	14	—	10	58	17	2	181	33	737
1943.....	105	23	13	1	7	41	11	9	78	26	314
1944.....	71	42	4	2	3	27	11	7	62	31	260
1945.....	58	54	2	—	3	39	12	6	70	28	272
1946.....	77	57	2	4	3	32	14	7	64	18	278
1947.....	153	152	6	7	—	57	20	5	92	53	545
1948.....	289	188	9	4	3	77	30	4	144	65	813

### 5.—Estimated Assets and Liabilities of Commercial Failures, 1939-48

NOTE.—Figures for 1923-38 will be found at p. 571 of the 1942 Year Book.

Year	Estimated Total Assets	Estimated Total Liabilities	Year	Estimated Total Assets	Estimated Total Liabilities
	\$	\$		\$	\$
1939.....	11,186,360	15,089,461	1944.....	1,628,959	3,460,181
1940.....	7,676,295	10,663,326	1945.....	1,864,359	3,995,109
1941.....	7,325,738	9,133,657	1946.....	4,039,339	5,966,153
1942.....	4,500,195	6,019,308	1947.....	5,933,211	10,077,557
1943.....	2,675,846	5,339,523	1948.....	9,855,789	15,723,615

**6.—Commercial Failures in Canada, by Provinces and Branches of Business for 1948, with Totals for 1947**

Branch of Business	P.E.I. and N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total for 1948	Total for 1947
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
<b>Trade—</b>										
General stores.....	—	1	31	2	1	1	—	1	37	26
Grocery.....	—	1	27	5	—	—	—	—	33	16
Confectionery.....	—	—	12	—	—	—	—	—	12	8
Drink and tobacco.....	—	—	5	—	—	—	—	—	5	5
Fish and meat.....	—	—	16	—	—	—	1	—	17	11
Boots and shoes.....	—	—	6	2	—	—	—	—	8	3
Dry goods.....	—	—	10	—	—	—	1	—	11	3
Clothing.....	1	—	15	4	—	—	1	2	23	10
Furniture.....	—	—	7	3	—	—	—	1	11	5
Books and stationery.....	—	—	3	—	—	—	—	—	3	2
Automobile.....	1	—	5	2	—	—	1	—	9	1
Hardware.....	1	—	10	1	—	1	—	1	14	1
Electric apparatus.....	—	—	9	2	1	—	—	—	12	1
Jewellery.....	—	—	7	2	—	—	—	2	11	2
Coal and wood.....	1	—	14	3	—	—	1	—	19	4
Drugs and chemicals.....	—	—	5	1	—	—	—	—	6	4
Miscellaneous.....	1	1	46	9	—	—	—	1	58	52
<b>Totals, Trade.....</b>	<b>5</b>	<b>3</b>	<b>228</b>	<b>36</b>	<b>2</b>	<b>2</b>	<b>5</b>	<b>8</b>	<b>289</b>	<b>153</b>
<b>Manufacturing—</b>										
Vegetable foods.....	—	2	14	3	—	—	—	1	20	15
Drink and tobacco.....	—	—	1	—	—	—	—	—	1	1
Animal foods.....	—	1	2	1	—	—	—	1	5	3
Fur and leather.....	—	—	26	4	—	—	—	—	30	18
Pulp and paper.....	—	—	4	—	—	—	—	—	4	1
Textiles.....	—	—	2	1	—	—	—	1	4	1
Clothing.....	—	—	12	2	—	—	—	—	14	9
Lumber and manufacture.....	—	—	35	3	—	—	—	2	40	42
Iron and steel.....	—	—	14	7	1	—	—	5	27	16
Non-ferrous metals.....	—	—	5	1	—	—	—	—	6	7
Non-metallic minerals.....	—	—	3	—	—	—	—	—	3	2
Drugs and chemicals.....	—	—	2	2	—	—	—	1	5	8
Miscellaneous.....	—	—	24	3	1	—	—	1	29	29
<b>Totals, Manufacturing.....</b>	<b>—</b>	<b>3</b>	<b>144</b>	<b>27</b>	<b>2</b>	<b>—</b>	<b>—</b>	<b>12</b>	<b>188</b>	<b>152</b>
<b>Service—</b>										
Garage.....	—	1	28	2	—	—	—	2	33	12
Other custom and repair.....	1	1	19	6	1	—	—	—	28	17
Personal.....	—	—	28	5	—	—	—	3	38	30
Restaurants.....	—	1	19	2	—	—	1	1	24	9
Professional.....	—	—	8	4	—	—	—	—	12	18
Recreational.....	—	—	4	—	—	—	—	—	4	2
Business.....	—	—	6	1	—	—	—	—	7	4
<b>Totals, Service.....</b>	<b>1</b>	<b>3</b>	<b>112</b>	<b>20</b>	<b>1</b>	<b>—</b>	<b>1</b>	<b>6</b>	<b>144</b>	<b>92</b>
<b>Other—</b>										
Agriculture.....	—	—	5	4	—	—	—	—	9	6
Mining.....	—	—	—	1	—	—	—	2	3	—
Logging, fishing and trapping.....	—	—	1	—	—	1	—	2	4	7
Construction.....	2	2	48	14	2	1	1	7	77	57
Transportation and public utilities.....	1	1	26	2	—	—	—	—	30	20
Finance.....	—	—	3	—	1	—	—	—	4	5
<b>Totals, Other.....</b>	<b>3</b>	<b>3</b>	<b>83</b>	<b>21</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>11</b>	<b>127</b>	<b>95</b>
Not classified.....	1	1	46	12	—	—	1	4	65	53
<b>Grand Totals.....</b>	<b>10</b>	<b>13</b>	<b>613</b>	<b>116</b>	<b>8</b>	<b>4</b>	<b>8</b>	<b>41</b>	<b>813</b>	<b>545</b>



## Section 3.—Administration of Bankrupt Estates

The administration of bankrupt estates is supervised by the Superintendent of Bankruptcy (appointed in 1932) with the object of conserving as far as possible the assets of bankrupt estates for the benefit of the creditors.

## 7.—Assets, Liabilities, Assets Realized and Costs of Administration in Bankrupt Estates Closed, 1937-47, and by Provinces, 1948

(Source: The Annual Report of the Superintendent of Bankruptcy)

NOTE.—Figures for the years 1933-36 are given at p. 846 of the 1947 Year Book.

Year and Province or City	Estates Closed	Assets Estimated by Debtor	Liabilities Estimated by Debtor	Total Realization	Cost of Administration	Percentage of Costs to Total	Paid to Creditors
	No.	\$	\$	\$	\$	p.c.	\$
<b>Totals, 1937</b> .....	1,149	18,397,022	20,431,515	2,805,743	770,563	27.5	2,035,180
<b>Totals, 1938</b> .....	1,098	15,995,276	21,740,131	2,526,562	717,485	28.4	1,809,077
<b>Totals, 1939</b> .....	1,119	13,174,172	15,760,643	2,667,708	815,396	30.6	1,852,312
<b>Totals, 1940</b> .....	1,084	11,315,392	14,932,651	2,495,254	756,646	30.3	1,738,608
<b>Totals, 1941</b> .....	981	11,597,029	14,315,281	3,408,625	896,554	26.3	2,512,071
<b>Totals, 1942</b> .....	879	10,994,748	12,023,215	2,393,661	772,995	32.3	1,620,666
<b>Totals, 1943</b> .....	675	7,693,251	9,593,541	2,046,612 <sup>1</sup>	706,257	34.5	1,340,355
<b>Totals, 1944</b> .....	468	3,495,148	6,154,052	1,196,725 <sup>1</sup>	425,121	35.5	771,604
<b>Totals, 1945</b> .....	351	4,969,923	6,795,160	1,037,252 <sup>1</sup>	339,119	32.7	698,133
<b>Totals, 1946</b> .....	299	3,030,599	4,716,747	1,202,650 <sup>1</sup>	281,999	23.5	920,651
<b>Totals, 1947</b> .....	320	2,883,824	4,841,491	1,174,108 <sup>1</sup>	308,099	26.2	866,010
<b>1948</b>							
Prince Edward Island..	—	—	—	—	—	—	—
Nova Scotia.....	6	55,056	111,123	18,366	3,050	16.7	15,316
New Brunswick.....	10	43,255	85,064	19,305	4,048	21.0	15,256
Quebec <sup>2</sup> .....	174	2,658,193	4,251,704	1,050,368	229,396	21.8	820,972
Montreal.....	195	1,764,836	3,584,451	824,754	313,199	38.0	511,555
Ontario <sup>2</sup> .....	30	813,232	920,745	207,816	37,565	18.1	170,250
Toronto.....	22	548,766	871,003	210,893	55,987	26.6	154,906
Manitoba.....	2	21,098	25,181	19,905	5,613	28.2	14,293
Saskatchewan.....	—	—	—	—	—	—	—
Alberta.....	4	486,066	835,170	75,445	15,671	20.8	59,775
British Columbia.....	7	49,754	132,335	34,705	7,598	21.9	27,107
<b>Totals, 1948</b> .....	450	6,440,256	10,816,776	2,461,557 <sup>1</sup>	672,127	27.3	1,789,430

<sup>1</sup> Exclusive of assets realized direct by secured creditors. The amounts so realized for the last 7 years were approximately as follows: \$2,596,068 in 1942, \$1,709,722 in 1943, \$1,201,289 in 1944, \$1,811,803 in 1945, \$684,039 in 1946, \$582,811 in 1947 and \$1,597,781 in 1948.

<sup>2</sup> Exclusive of the city shown separately.

The Farmers' Creditors Arrangement Act came into effect Sept. 1, 1934. This Act was amended in 1935 and 1938 and was repealed and replaced by the Farmers' Creditors Arrangement Act, 1943. Assignments are made only in those cases in which the farmers are hopelessly insolvent and, in many cases, the assignments follow the rejection of proposals submitted to the creditors. Receiving orders are made only in cases in which the farmers have failed to fulfil the terms of their proposals as accepted by the creditors and approved by the court. Table 8 shows only statistics of estates closed by assignments or receiving orders and does not indicate the proposals that have been approved and are being carried out under the Farmers' Creditors Arrangement Act. For the year 1948 only the Provinces of Quebec, Ontario and Saskatchewan reported assignments.

**8.—Assets, Liabilities, Assets Realized and Costs of Administration in Estates Closed by Assignments or Receiving Orders under the Farmers' Creditors Arrangement Act, 1938-47, and by Provinces, 1948.**

(Source: The Annual Report of the Superintendent of Bankruptcy)

NOTE.—Figures for the years 1935-37 are given at p. 847 of the 1947 Year Book.

Year and Province	Estates Closed	Assets Estimated by Debtor	Liabilities Estimated by Debtor	Total Realization <sup>1</sup>	Cost of Administration	Percentage of Cost to Total	Paid to Creditors
	No.	\$	\$	\$	\$	p.c.	\$
<b>Totals, 1938.....</b>	<b>139</b>	<b>575,514</b>	<b>974,002</b>	<b>76,832</b>	<b>13,400</b>	<b>17.4</b>	<b>63,432</b>
<b>Totals, 1939.....</b>	<b>83</b>	<b>368,548</b>	<b>688,524</b>	<b>39,808</b>	<b>9,466</b>	<b>23.8</b>	<b>30,342</b>
<b>Totals, 1940.....</b>	<b>59</b>	<b>267,032</b>	<b>459,516</b>	<b>37,338</b>	<b>7,417</b>	<b>19.8</b>	<b>29,921</b>
<b>Totals, 1941.....</b>	<b>42</b>	<b>177,974</b>	<b>288,031</b>	<b>31,319</b>	<b>9,652</b>	<b>30.8</b>	<b>21,667</b>
<b>Totals, 1942.....</b>	<b>19</b>	<b>70,380</b>	<b>114,333</b>	<b>9,702</b>	<b>1,785</b>	<b>18.4</b>	<b>7,917</b>
<b>Totals, 1943.....</b>	<b>10</b>	<b>31,080</b>	<b>50,059</b>	<b>5,053</b>	<b>1,379</b>	<b>27.3</b>	<b>3,674</b>
<b>Totals, 1944.....</b>	<b>18</b>	<b>55,081</b>	<b>86,597</b>	<b>13,111</b>	<b>5,150</b>	<b>39.3</b>	<b>7,961</b>
<b>Totals, 1945.....</b>	<b>3</b>	<b>3,210</b>	<b>13,697</b>	<b>1,870</b>	<b>887</b>	<b>47.4</b>	<b>983</b>
<b>Totals, 1946.....</b>	<b>7</b>	<b>34,363</b>	<b>67,141</b>	<b>8,414</b>	<b>1,222</b>	<b>14.5</b>	<b>7,192</b>
<b>Totals, 1947.....</b>	<b>6</b>	<b>31,986</b>	<b>28,518</b>	<b>1,931</b>	<b>747</b>	<b>38.7</b>	<b>1,184</b>
<b>1948</b>							
Quebec.....	3	25,750	38,022	3,527	747 <sup>2</sup>	21.2	2,780
Ontario.....	1	17,273	19,326	10,151	1,991	19.6	8,160
Saskatchewan.....	2	7,115	7,785	1,913	308	16.1	1,605
<b>Totals, 1948.....</b>	<b>6</b>	<b>50,138</b>	<b>65,133</b>	<b>15,591</b>	<b>3,046<sup>2</sup></b>	<b>19.5</b>	<b>12,545</b>

<sup>1</sup> Exclusive of land and chattels transferred to or repossessed by secured creditors. costs totalling \$47-58 have been paid by the Federal Government.

<sup>2</sup> Further

# CHAPTER XXII.—FOREIGN TRADE

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

The subject of foreign trade covers more than treatment of imports and exports of commodities, important though this is. In its broader sense, it is made up of the total international exchanges of goods, services, securities and other financial exchanges all of which are presented in their proper relationship in the three Parts of this Chapter. Part I gives detailed statistics of external commodity trade. Part II summarizes external transactions from a standpoint of the balance of international payments. Part III outlines the various ways in which the Government promotes and encourages trade relationships, and reviews as well the Canadian tariff structure.

## Review of Foreign Trade

### Review of World Trade, 1948-49, as it Affected Canada

Certain favourable factors operated in 1948 to expand Canadian export trade. Continued high economic activity in the United States encouraged higher levels of exports to that country and United States tariff concessions assisted this movement. Certain Canadian export restrictions to the United States, including those on meat, cattle and grains, were also lifted and this permitted those commodities to move in greater volume to the United States at a time when the demands for many of these products were declining in overseas countries. The maintenance of most of the import restrictions throughout the year kept Canadian imports from the United States at a reasonable level, however.

The most important result that emerged from Canada's trade during 1948 was a substantial increase in the balance of exports. This contributed materially to the marked recovery in Canada's foreign exchange reserves which had reached a critically low level during the previous year. The result noted, however, was accomplished at the expense of unprecedented shifts in the directions of Canadian trade. The traditional export balance with overseas countries—particularly the United Kingdom and other members of the Sterling Area—was reduced and Canada's import balance with the United States underwent considerable contraction.



A new element of considerable significance affecting world trade in 1948 was the establishment by the United States of the Economic Co-operation Administration within the framework of the European Recovery Program (E.R.P.). The effects of the operations of this Administration helped to prevent a more severe contraction of exports to Europe although world-wide exchange difficulties, which persisted from the previous year into 1948, had their undermining effect on the purchases of all countries including those receiving direct or indirect assistance from the United States.

Restrictions on expenditures by such outside countries became particularly wide-spread and affected Canadian export trade very materially, but there were other developments and tendencies adversely affecting Canadian trade during 1948. Because of the inability to earn dollars, many countries outside the dollar areas have, aside from the European Recovery Program, had to restrict imports still further below normal and there has been a strong tendency for them to develop trade among themselves even on such artificial bases as special arrangements and bilateral deals.

In the face of all the factors and changes in direction of trade mentioned above, Canada achieved a peacetime record of foreign trade when viewed on a dollar basis. Even from the standpoint of volume there was a slight increase in exports against the 1947 level although, in this comparison, a decline of 9 p.c. in imports was shown. In comparison with 1938, the volume of Canadian trade in 1948 stood at an amount almost double the pre-war level and at prevailing prices the turn-over had increased almost fourfold (see value-volume relationships of trade on the new basis at pp. 942-943).\*

Government policies took an active part in moulding the pattern of Canadian foreign trade. Canada took part in the Geneva Conference of 1948 as a result of which tariff reductions were agreed upon by various countries including the United States. As noted above these had a favourable effect on the subsequent development of Canadian exports.

The United States and Canada have extended considerable financial aid to Britain along with Continental European countries in the form of vast loans (Canada's loans to other countries as at the end of 1948 are shown in the statement on p. 901) made after the First and the Second World Wars but these loans have failed to achieve the desired objective.

Much has been done to tide the United Kingdom and Western Europe over the worst stage of post-war adjustment. However, the stage was reached in the middle of 1949 when the fundamental unbalance of British trade with the Dollar Area called for drastic action. The crisis deepened during the summer and an Anglo-American-Canadian economic conference met at Washington in September to examine the problem. This conference considered means to expand United Kingdom and sterling exports to North America and decided upon some measures which might be taken to achieve this end. A short time after the conference, the United Kingdom Chancellor of the Exchequer announced the devaluation of sterling by 30.5 p.c. in order to bring United Kingdom prices more into line with those in

\* References to the difficulty of devising a uniform price denominator are to be found in Dominion Bureau of Statistics Reference Papers, 1949, No. 5, price 50 cents.

North America. Sterling devaluation was followed by changes in the values of most of the soft currencies throughout the world. Because of the altered situation, the Canadian dollar was reduced by about 9 p.c. in terms of the United States dollar. All these re-adjustments were designed to provide a healthier basis for the expansion of world trade.

#### I.—POST-WAR LOANS AND ADVANCES TO OTHER COUNTRIES BY THE CANADIAN GOVERNMENT

Country	Export Credit Loans Authorized	Net Amounts Drawn <sup>1</sup>			
		1945	1946	1947	1948
	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000
<b>A. EXPORT CREDITS—</b>					
France.....	242.5	34.9	108.9	54.6	35.4
Netherlands.....	125.0	29.8	34.2	40.6	8.4
Belgium.....	100.0	22.5	30.1	12.3	+1.1 <sup>2</sup>
China.....	60.0	—	16.5	16.1	18.4
Norway.....	30.0	6.2	10.2	3.6	3.3
Czechoslovakia.....	19.0	0.7	3.2	8.2	4.3
Netherlands Indies.....	15.0	0.6	4.8	4.6	5.0
Union of Soviet Socialist Republics..	3.0	9.9	1.8	—	—
<b>TOTALS—FOREIGN COUNTRIES.....</b>	<b>594.5</b>	<b>104.6</b>	<b>209.7</b>	<b>140.0</b>	<b>73.7</b>
<b>B. LOAN TO UNITED KINGDOM.....</b>	<b>1,250.0</b>	<b>—</b>	<b>540.0</b>	<b>423.0</b>	<b>52.0</b>

<sup>1</sup> Net amounts drawn include interim advances as well as drawings on Export Credit loans less repayments of interim advances and loans. All advances had been repaid by Dec. 31, 1947, with the exception of \$8,800,000 to the Union of Soviet Socialist Republics.

<sup>2</sup> Net repayments.

### The Place of Foreign Trade in the Canadian Economy

Canada has always been heavily dependent upon outside sources for the means of her development as a nation, yet circumstances during the past three decades have greatly modified this position. Since the First World War export trade has broadened in variety from the few basic primary commodities such as wheat, lumber, metals, etc., and, although these still predominate, they are by no means as important relatively as they once were. This fact has enabled Canadians to improve their standard of living considerably since the greater variety of exports has been based on a diversified production for domestic use as well.

Canada in 1948 was the fourth largest importing nation in terms of the value of commodities received. Only the United Kingdom, the United States and France held higher rank. On a per capita basis Canada out-ranked all these countries with \$205 of imports per capita compared with \$167 for the United Kingdom, \$81 for France and \$48 for the United States.

The influences that have contributed to this result are varied. For instance, much of the increase in dollar value is due to the rise in prices (see pp. 942-943). Again the general level of business activity throughout the world, especially in those countries with which trade is carried on, is a most important factor in the demand for goods, and this has remained high ever since the War. Finally, the advances in industrialization in Canada have increased the need for imported goods in many directions although they have also decreased the need in others: on balance, however, the result has certainly not been on the side of a reduction.

The core of Canada's import trade is still such commodities as fuels, steel, mechanical equipment, textiles, and foodstuffs from tropical and semi-tropical climates, as shown in the following statement. The leading exports of many decades ago are still recognizable, although in several cases (e.g., newsprint) they have taken on more complete manufactured forms.

<i>Principal Imports</i>	<i>,\$'000</i>	<i>Principal Exports</i>	<i>\$'000</i>
Petroleum, crude and refined.....	292,734	Newsprint paper.....	383,123
Machinery, except agricultural.....	217,091	Wheat.....	243,023
Coal.....	186,388	Wood-pulp.....	211,564
Farm implements and machinery.....	139,993	Planks and boards.....	196,023
Automobile parts.....	101,261	Flour of wheat.....	125,151
Rolling-mill products.....	83,929	Aluminum and products.....	102,046
Cotton products.....	78,518	Fish and fishery products.....	85,028
Sugar and products.....	71,752	Ships and vessels.....	81,448

The Canadian economy is linked closely with that of the United States and in view of the extent to which industry has developed in that country and the huge domestic market to which it caters (and therefore the relative cheapness with which goods can be marketed), it is natural that Canadians, with their many close contacts and in many cases similar habits and tastes, should be large importers of United States goods, even in the face of tariff barriers. Again, the tariff has frequently served only to bring United States branch factories to Canada and so Americanize industry to a greater extent than ever. Since the present scale of United States imports must be paid for by exports and since the position in regard to the United Kingdom has made it impossible at present to retain our traditional market there, it is imperative that reliance be placed on broadening export outlets in other directions. This is the most pressing problem that currently faces Canadian export trade.

## PART 1.—FOREIGN TRADE STATISTICS\*

### Section 1.—Explanations *re* Canadian Trade Statistics

Certain problems of procedure arise in recording trade statistics and require explanation. For the correct interpretation of the statistics of foreign trade, it is necessary that the following definitions and explanations of terms used be kept in mind:—

*Quantities and Values.*—In all tables of imports and exports, the quantities and values are based upon the declarations of importers (import entries) and exporters (export entries), as subsequently checked by customs officials.

*Imports: Valuation.*—“Imports” means imports entered for consumption. “Entered for consumption” does not necessarily imply that the goods have been actually consumed in Canada, but that they have passed into the possession of the importer and that duty has been paid on that portion liable for duty.

Under the main provisions of the law, the value of merchandise imported into Canada is the fair market value or price thereof when sold for home consumption in the principal markets of the country from which said merchandise was exported. (See Sects. 35 to 45 and 55 of the Customs Act.)

\* This Part of the Chapter is based on statistics taken from reports published by the External Trade Section, International Trade Division, Dominion Bureau of Statistics.



*Canadian Exports: Valuation.*—"Canadian produce" exported includes Canadian products or manufactures, also exports of commodities of foreign origin that have been changed in form or enhanced in value by further manufacture in Canada, such as sugar refined in Canada from imported raw sugar, aluminum extracted from imported ore, and articles constructed or manufactured from imported materials. The value of exports of Canadian merchandise is the actual amount received in Canadian dollars exclusive of freight, insurance, and other handling charges.

*Foreign Exports: Valuation.*—"Foreign produce" exported consists of foreign merchandise that had previously been imported (entered for home consumption). The value of such commodities is the actual amount received in Canadian dollars exclusive of freight, insurance, and other handling charges.

*Countries to which Trade is Credited.*—Imports are classified as received from the countries whence they were consigned to Canada. The countries whence goods are consigned are not necessarily the countries of actual origin, since goods produced in one country may be purchased by a firm in another country and thence despatched, after longer or shorter interval, to Canada. In such cases the second country would be the country of consignment, to which the goods would be credited.

Exports are credited to the country to which they are consigned.

*Discrepancies in Trade Statistics between Canada and Other Countries.*—Canadian statistics of exports are rarely in exact agreement with the import figures of her customers and similar differences occur with Canadian imports. Many factors contribute to these discrepancies, among which are the following:—

1. Differences in the system of valuation used by Canada and the systems used by other countries.
2. The element of time lag is of considerable importance where Canadian exports are concerned, particularly with bulk goods shipped to other continents. There are always quantities of goods in movement at the beginning or end of any trading period, and these affect the comparability between the two countries for the same period of time.
3. Canada's system of geographical classification, according to country of consignment, which may not be the ultimate destination of the goods.

**Imports from the United Kingdom.**—Published statistics of Canadian imports entered for consumption have always included several items that may be considered of a non-commercial character. These items are never very large in normal times but during the war years their inclusion in the total value of imports, from the United Kingdom in particular, tended to distort published data. The distinction between commercial and non-commercial imports is not always easy to establish, but three items have been segregated, as follows:—

- (a) "Articles for the use of the Imperial Army, Navy and Air Force". These imports consisted almost entirely of war equipment of various kinds for experimental purposes, training and use in Canada by the United Kingdom Government. The values applied to the articles imported under this classification were nominal and no duty was paid.
- (b) "Canadian goods returned". Before the War, this item amounted in value to several hundred thousand dollars annually. Late in 1945, however, the Canadian Government began the repatriation of large stocks of war equipment, the bulk of which was shipped from the United Kingdom. On entering Canada, they were classified under "Canadian goods returned" in the trade returns. They are not shown in the United Kingdom trade returns.
- (c) Settlers' effects, the property of immigrants.

The statement below shows the relation of these non-commercial items to the total.

I.—COMMERCIAL AND NON-COMMERCIAL IMPORTS FROM THE UNITED KINGDOM, 1939-48

Year	Articles for Imperial Forces	Canadian Goods Returned	Settlers' Effects	Total Non- Commercial Imports	Commercial Imports	Total Recorded Imports
	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000
1939.....	0.8	0.4	0.6	1.8	112.2	114.0
1940.....	23.5	0.3	0.6	24.4	136.8	161.2
1941.....	81.2	0.1	0.1	81.4	138.0	219.4
1942.....	42.5	0.4	0.1	43.0	118.1	161.1
1943.....	34.3	0.1	1	34.4	100.6	135.0
1944.....	16.2	0.3	0.1	16.6	94.0	110.6
1945.....	21.2	18.8	0.2	40.2	100.3	140.5
1946.....	2.3	60.1	1.4	63.8	137.6	201.4
1947.....	1.5	0.8	3.4	5.7	183.7	189.4
1948.....	0.7	0.8	4.9	6.4	293.1	299.5

<sup>1</sup> Less than \$50,000.

**Treatment of Gold in Trade Statistics.**—The fact that gold is a money metal gives it peculiar attributes that distinguish it from other commodities in trade. In particular, the movement of gold in international trade is determined, almost exclusively, by monetary factors. The amount of exports may fluctuate widely from month to month owing to other than ordinary trade or commercial considerations. In addition, gold is generally acceptable. It does not have to surmount tariff barriers and is normally assured a market at a relatively fixed price. It should also be noted that gold does not move in international trade in any direct or normal relation to sales and purchases. Changes in the Bank of Canada's stock of gold under earmark do not enter, therefore, into the trade statistics.

Statistics showing the *net* exports of non-monetary gold, including changes in stocks held under earmark, which supplement the trade figures, are given below.

II.—NET EXPORTS OF NON-MONETARY GOLD, 1941-48

Month	1941	1942	1943	1944	1945	1946	1947	1948
	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000
January.....	19.2	15.1	13.9	9.4	8.7	9.3	9.0	9.6
February.....	14.7	16.6	12.8	8.1	8.4	9.5	6.9	8.9
March.....	19.7	16.1	12.8	12.9	10.2	10.0	6.8	8.7
April.....	14.3	14.1	13.5	9.3	6.8	7.2	6.4	9.5
May.....	16.1	15.5	12.5	9.4	10.2	10.0	8.2	8.8
June.....	18.4	16.8	12.2	10.9	4.7	7.7	8.6	9.6
July.....	17.3	16.3	10.0	6.6	8.0	6.6	10.1	10.8
August.....	12.6	13.1	10.2	10.0	8.5	7.5	7.5	9.7
September.....	21.2	15.0	11.8	8.7	6.8	6.8	8.4	11.9
October.....	17.4	19.3	11.3	8.4	7.7	8.5	9.2	9.6
November.....	15.4	12.6	8.8	10.1	9.8	6.0	7.2	9.1
December.....	17.4	13.9	12.2	5.9	6.2	6.7	11.0	12.8
TOTALS.....	203.7	184.4	142.0	109.7	96.0	95.8	99.3	119.0

## Section 2.—Total Foreign Trade\*

In considering the figures in the following tables, reference should be made to the explanatory notes on trade in Section 1. It must be emphasized that gold imports and exports are excluded from all tables. Imports from the United Kingdom from 1940 to 1946 are distorted by the inclusion of large amounts of non-commercial items in the trade returns (see p. 904). United Kingdom figures can be viewed in a proper perspective only if these non-commercial items are excluded from the recorded import statistics.

The trade of Canada for the period 1919-48 is shown in Table 1.

## 1.—Value of Total Foreign Trade of Canada (Excluding Gold), 1919-48

NOTE.—These figures are available on a calendar-year basis only since 1919; figures for the fiscal years 1868-1919 are given in the 1940 edition of the Year Book, p. 526.

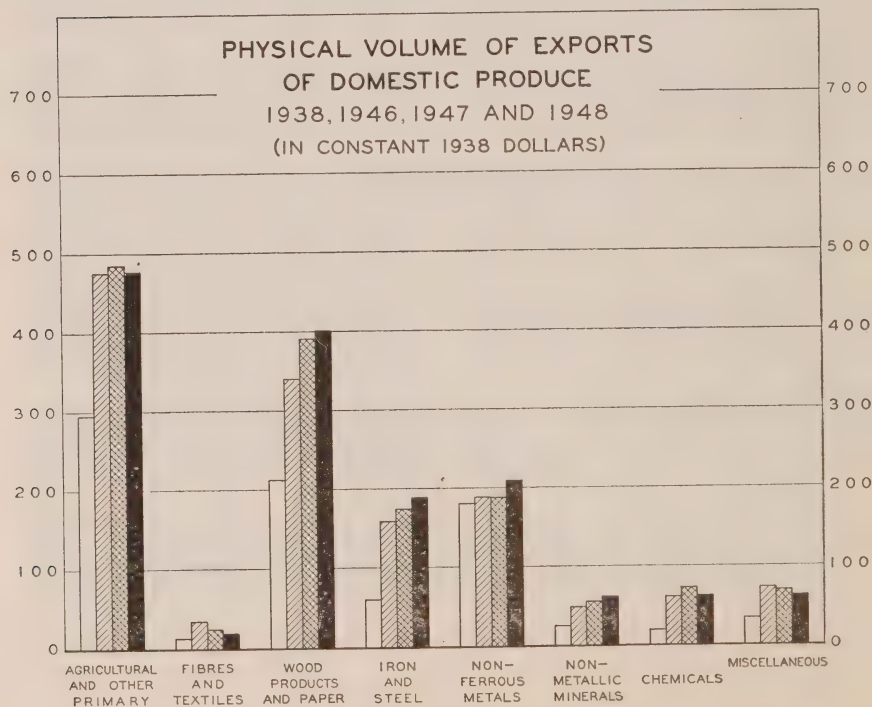
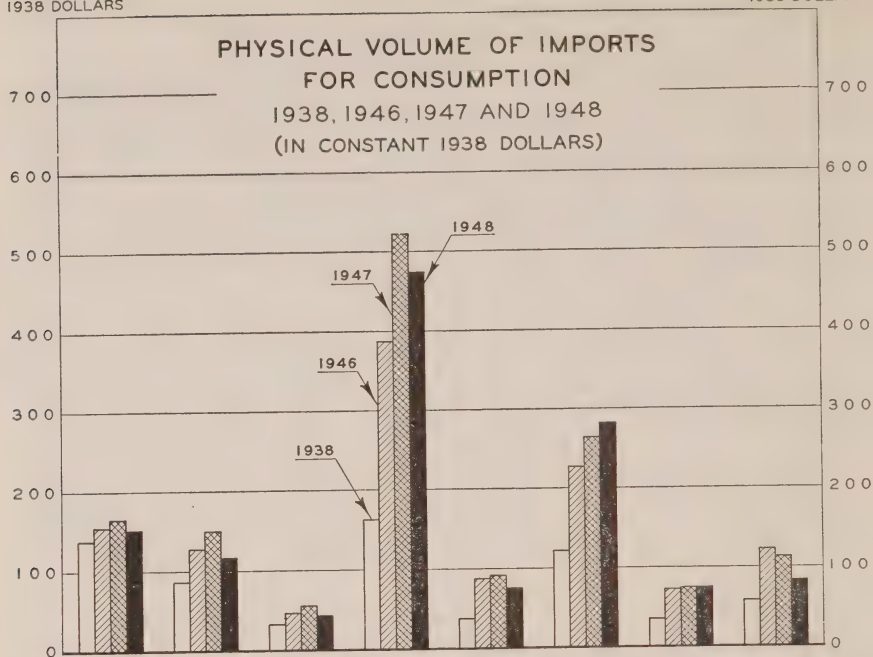
Year	Imports			Exports			Balance of Trade: Excess of Exports (+) Imports (—)
	Dutiable	Free	Total	Domestic Produce	Foreign Produce	Total	
	\$	\$	\$	\$	\$	\$	\$
1919...	607,458,191	333,555,422	941,013,613	1,235,958,483	53,833,452	1,289,791,935	+348,778,322
1920...	890,847,353	446,073,668	1,336,921,021	1,268,014,533	30,147,672	1,298,162,205	— 38,758,816
1921...	546,863,395	252,615,088	799,478,483	800,149,296	13,994,461	814,143,757	+ 14,665,274
1922...	513,330,771	249,078,538	762,409,309	880,408,645	13,815,268	894,223,913	+131,814,604
1923...	594,098,589	308,931,926	903,030,515	1,002,401,467	13,584,849	1,015,986,316	+112,955,801
1924...	528,912,308	279,232,265	808,144,573	1,029,699,449	12,553,718	1,042,253,167	+234,108,594
1925...	561,061,127	329,132,221	890,193,348	1,239,554,207	12,111,941	1,251,666,148	+361,472,800
1926...	642,448,478	365,893,433	1,008,341,911	1,261,241,525	15,357,292	1,276,598,817	+268,256,906
1927...	696,253,024	390,864,906	1,087,117,930	1,210,596,998	20,445,231	1,231,042,229	+143,924,299
1928...	788,271,150	434,046,766	1,222,317,916	1,339,409,562	24,378,794	1,363,788,356	+141,470,440
1929...	849,114,653	449,878,039	1,298,992,692	1,152,416,330	25,926,117	1,178,342,447	—120,650,245
1930...	647,230,123	361,249,356	1,008,479,479	863,683,761	19,463,987	883,147,748	—125,331,731
1931...	416,179,513	211,918,873	628,098,386	587,653,440	11,907,020	599,560,460	— 28,537,926
1932...	288,425,260	164,188,997	452,614,257	489,883,112	8,030,485	497,913,597	+ 45,299,340
1933...	235,195,782	166,018,529	401,214,311	529,449,529	6,034,260	535,483,789	+134,269,478
1934...	295,566,101	217,903,396	513,469,497	649,314,236	6,991,992	656,306,228	+142,836,731
1935...	306,913,652	243,400,899	550,314,551	724,977,459	12,958,420	737,935,879	+187,621,328
1936...	350,903,936	284,286,908	635,190,844	937,824,933	12,684,319	950,509,252	+315,318,408
1937...	436,327,558	372,568,767	808,896,325	997,866,918	14,754,862	1,012,121,780	+203,225,459
1938...	379,095,355	298,355,999	677,451,354	837,583,917	11,100,216	848,684,133	+171,232,775
1939...	427,470,633	323,584,901	751,055,534	924,926,104	10,995,609	935,921,713	+184,866,179
1940...	582,934,898	499,015,821	1,081,950,719	1,178,954,420	14,263,172	1,193,217,592	+111,266,873
1941...	732,791,033	716,000,617	1,448,791,650	1,621,003,175	19,451,366	1,640,454,541	+191,662,891
1942...	715,018,745	929,223,188	1,644,241,933	2,363,773,296	21,692,750	2,385,466,046	+741,224,113
1943...	836,548,673	898,528,217	1,735,076,890	2,971,475,277	29,877,002	3,001,352,279	+1,266,275,389
1944...	884,751,584	874,146,613	1,758,898,197	3,439,953,165	43,145,447	3,483,098,612	+1,724,200,415
1945...	798,795,201	786,979,941	1,585,775,142	3,218,330,353	49,093,935	3,267,424,288	+1,681,649,146
1946...	1,078,943,972	848,335,430	1,927,279,402	2,312,215,301	26,850,546	2,339,165,847	+411,886,445
1947...	1,562,690,081	1,011,254,044	2,573,944,125	2,774,902,355	36,888,055	2,811,790,410	+237,846,285
1948...	1,382,202,722	1,254,742,630	2,636,945,352	3,075,438,085	34,590,583	3,110,028,668	+473,083,316

\* Prepared in the External Trade Section, International Trade Division of the Dominion Bureau of Statistics.



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1938 DOLLARS

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## Section 3.—Trade by Geographic Areas

The tables in this Section provide information about Canada's total foreign trade by continents and by countries with special reference in Tables 4 to 8 to the division between Commonwealth and foreign countries.

## 2.—Trade of Canada, by Continents, 1939, 1947 and 1948

Continent	1939		1947		1948	
	Value	P.C. of Total	Value	P.C. of Total	Value	P.C. of Total
<b>Imports</b>	\$'000		\$'000		\$'000	
Europe—						
United Kingdom.....	114,007	15.2	189,370	7.4	299,502	11.4
Other Europe.....	37,119	4.9	57,656	2.2	71,472	2.7
North America—						
United States.....	496,898	66.1	1,974,679	76.7	1,805,763	68.5
Other North America.....	17,146	2.3	110,288	4.3	135,671	5.1
South America.....	21,047	2.8	102,123	4.0	150,138	5.7
Asia.....	38,065	5.1	87,306	3.4	93,967	3.6
Oceania.....	18,608	2.5	29,959	1.1	48,089	1.8
Africa.....	8,166	1.1	22,563	0.9	32,344	1.2
<b>Totals, Imports.....</b>	<b>751,056</b>	<b>100.0</b>	<b>2,573,944</b>	<b>100.0</b>	<b>2,636,945</b>	<b>100.0</b>
<b>Exports (Domestic)</b>						
Europe—						
United Kingdom.....	328,099	35.5	751,198	27.1	686,914	22.3
Other Europe.....	57,870	6.3	372,348	13.4	329,355	10.7
North America—						
United States.....	380,392	41.1	1,034,226	37.3	1,500,987	48.8
Other North America.....	28,739	3.1	164,087	5.9	151,924	4.9
South America.....	16,165	1.8	111,501	4.0	93,622	3.1
Asia.....	44,779	4.8	132,960	4.8	134,401	4.4
Oceania.....	46,150	5.0	102,357	3.7	63,618	2.1
Africa.....	22,732	2.4	105,724	3.8	114,617	3.7
<b>Totals, Exports.....</b>	<b>924,926</b>	<b>100.0</b>	<b>2,774,902</b>	<b>100.0</b>	<b>3,075,438</b>	<b>100.0</b>

## 3.—Trade of Canada, by Leading Countries, 1939, 1947 and 1948

NOTE.—Countries arranged in order of importance, 1948.

Rank			Country	1939	1947	1948
1939	1947	1948				
			<b>Imports</b>	\$'000	\$'000	\$'000
1	1	1	United States.....	496,898	1,974,679	1,805,763
2	2	2	United Kingdom.....	114,007	189,370	299,502
27	3	3	Venezuela.....	1,943	46,688	94,758
5	4	4	India (includes Pakistan).....	10,358	42,250	34,706
4	9	5	Australia.....	11,269	14,222	27,415
37	7	6	Mexico.....	479	16,980	27,258
31	5	7	Cuba.....	889	23,751	22,606
3	8	8	British Malaya.....	13,145	16,908	21,878
29	10	9	Brazil.....	1,111	13,888	20,559
1	21	10	Dominican Republic.....	16	8,186	17,270
7	11	11	British Guiana.....	6,891	12,358	15,380
8	15	12	Belgium.....	6,772	10,120	13,661
9	19	13	France.....	6,028	8,755	12,648
13	14	14	New Zealand.....	4,266	10,831	11,603
18	13	15	Ceylon.....	3,562	11,653	11,182

<sup>1</sup> Not ranked among the leading 30 countries in 1939.

## 3.—Trade of Canada, by Leading Countries, 1939, 1947 and 1948—concluded

Rank			Country	1939	1947	1948
1939	1947	1948				
			<b>Imports—concluded</b>	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>
26	17	16	Newfoundland.....	1,955	9,427	11,091
1	26	17	Gold Coast.....	251	6,493	9,751
1	41	18	Denmark.....	197	1,455	9,584
12	27	19	Jamaica.....	4,357	6,371	9,557
22	24	20	British East Africa.....	2,626	7,683	9,542
21	28	21	Trinidad and Tobago.....	2,668	5,654	9,027
10	18	22	Colombia.....	5,437	9,197	8,668
20	31	23	Fiji.....	2,777	4,178	8,275
1	16	24	Guatemala.....	164	9,488	8,209
19	12	25	Switzerland.....	3,459	11,941	7,444
1	20	26	Netherlands Antilles.....	270	8,648	7,286
23	32	27	Italy.....	2,354	3,872	6,981
1	22	28	Philippine Islands.....	451	8,063	6,442
15	23	29	Barbados.....	3,874	7,776	6,387
1	25	30	Honduras.....	17	6,999	6,182
			<b>Totals, Above 30 Countries.....</b>	<b>708,491</b>	<b>2,507,884</b>	<b>2,560,615</b>
			<b>Grand Totals, Imports.....</b>	<b>751,056</b>	<b>2,573,944</b>	<b>2,636,945</b>
			<b>Exports</b>	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>
1	1	1	United States.....	380,392	1,034,226	1,500,987
2	2	2	United Kingdom.....	328,099	751,198	686,914
12	3	3	France.....	6,973	81,058	92,963
5	4	4	Union of South Africa.....	17,965	66,674	83,248
8	7	5	Newfoundland.....	8,506	55,085	55,055
10	6	6	Netherlands.....	7,357	55,939	43,684
13	9	7	India (includes Pakistan).....	5,166	42,947	41,473
3	5	8	Australia.....	32,029	60,294	38,257
11	8	9	Belgium.....	7,261	52,749	33,035
23	11	10	Italy.....	2,231	35,688	32,379
22	12	11	China.....	2,636	34,984	29,128
14	14	12	Brazil.....	4,407	31,660	28,601
7	16	13	Norway.....	10,904	20,320	23,429
22	21	14	Switzerland.....	1,850	14,196	19,389
6	10	15	New Zealand.....	11,954	37,386	18,375
17	15	16	Trinidad and Tobago.....	4,211	26,354	17,105
25	23	17	Venezuela.....	1,702	12,989	16,935
18	13	18	Argentina.....	4,117	31,697	16,680
19	24	19	Mexico.....	3,004	11,701	15,045
9	35	20	Germany.....	7,869	6,690	13,214
15	17	21	Jamaica.....	4,313	18,214	12,350
1	22	22	Czechoslovakia.....	181	13,779	11,395
26	32	23	Cuba.....	1,497	7,502	10,987
1	25	24	Egypt.....	369	10,922	10,205
23	26	25	Philippine Islands.....	1,819	10,448	9,810
1	35	26	Greece.....	271	5,440	9,663
21	33	27	British Malaya.....	2,782	7,464	9,288
19	18	28	Ireland.....	3,597	17,598	9,257
24	28	29	Colombia.....	1,781	9,950	8,406
27	36	30	Hong Kong.....	1,463	6,398	8,256
			<b>Totals, Above 30 Countries.....</b>	<b>866,706</b>	<b>2,571,550</b>	<b>2,905,513</b>
			<b>Grand Totals, Exports.....</b>	<b>924,926</b>	<b>2,774,902</b>	<b>3,075,438</b>

1 Not ranked among the leading 30 countries in 1939.



## 4.—Values and Percentages of Trade with Overseas Countries via the United States, 1947 and 1948

Country	Imports via the United States				Domestic Exports via the United States			
	1947		1948		1947		1948	
	\$'000	p.c.	\$'000	p.c.	\$'000	p.c.	\$'000	p.c.
<b>British and Commonwealth Countries</b>								
United Kingdom.....	53	--	29	--	36,448	4.9	34,832	5.1
Ireland.....	—	...	—	...	429	2.4	393	4.2
Australia.....	461	0.3	6	--	6,488	1.1	9,155	24.0
Bermuda.....	—	...	1	0.7	627	12.3	379	9.2
British East Africa.....	831	10.8	182	1.9	4,009	85.6	2,472	71.2
British South Africa.....	63	1.5	101	2.6	13,363	20.0	12,400	14.9
British Guiana.....	168	1.4	19	0.1	117	1.1	152	1.8
British Honduras.....	342	5.9	15	1.8	224	1.6	206	1.8
British India.....	839	2.0	499	1.5	3,964	9.2	1,372	4.1
British West Indies.....	575	2.8	248	1.0	1,922	3.0	1,435	3.2
Ceylon.....	4	--	29	0.3	423	10.4	203	11.9
Gold Coast.....	1,101	17.0	172	1.8	1,623	98.2	1,917	92.5
Malta.....	—	...	—	...	676	10.1	800	24.6
Newfoundland.....	—	...	—	...	838	1.5	1,378	2.5
New Zealand.....	263	2.4	—	...	6,455	17.3	2,305	12.5
Palestine.....	4	13.0	—	...	923	10.9	1,075	21.3
<b>Totals, Commonwealth and British Countries<sup>1</sup>.....</b>	<b>5,110</b>	<b>0.9<sup>2</sup></b>	<b>2,682</b>	<b>0.3<sup>2</sup></b>	<b>93,096</b>	<b>5.3<sup>2</sup></b>	<b>80,669</b>	<b>5.1<sup>2</sup></b>
<b>Foreign Countries</b>								
Argentina.....	3,789	21.1	270	4.7	12,885	40.7	4,728	28.3
Belgium.....	28	0.3	2	--	2,580	4.9	2,752	8.3
Brazil.....	2,190	15.8	1,764	8.6	11,787	37.2	10,053	35.1
Chile.....	15	4.4	65	19.6	3,662	83.4	3,627	80.7
China.....	350	15.2	1,145	29.3	3,565	10.2	2,886	9.9
Colombia.....	3,356	36.5	1,568	18.1	6,194	62.3	4,950	58.9
Costa Rica.....	52	7.2	96	3.1	671	37.7	559	46.0
Cuba.....	1,031	4.3	768	3.4	5,063	67.5	5,596	50.9
Egypt.....	120	58.5	647	43.4	440	4.0	3,289	32.2
France.....	365	4.2	89	0.7	13,376	16.5	8,241	8.9
Guatemala.....	762	8.0	313	3.8	804	49.3	1,070	69.1
Haiti.....	12	5.3	31	17.6	683	50.0	455	32.7
Honduras.....	144	2.1	27	4.4	509	79.4	606	89.5
Iraq (Mesopotamia).....	820	54.6	292	36.5	274	12.7	306	36.8
Italy.....	557	14.4	555	8.0	5,837	16.4	1,721	5.3
Mexico.....	2,117	12.5	1,297	4.8	7,800	66.7	9,375	62.3
Netherlands.....	58	1.6	51	0.9	3,950	7.1	5,099	11.7
Panama.....	58	2.8	58	4.7	1,138	60.5	1,421	34.5
Peru.....	117	28.7	13	0.7	2,341	63.4	2,109	83.4
Portugal.....	93	6.6	78	6.6	1,669	47.7	1,031	19.9
Portuguese Africa.....	42	10.7	8	10.4	1,058	55.7	1,853	56.9
Puerto Rico.....	13	4.8	370	23.4	1,603	61.5	1,410	61.3
Spain.....	539	18.0	288	11.1	828	88.0	504	84.6
Sweden.....	409	12.8	256	9.3	2,340	13.4	1,802	25.0
Switzerland.....	777	6.5	296	4.0	1,746	12.3	3,440	17.7
Turkey.....	826	30.9	330	31.0	991	44.5	1,789	88.9
Uruguay.....	91	28.3	57	8.0	1,093	32.4	2,221	52.9
Union of Soviet Socialist Republics.....	52	28.7	—	...	2,241	46.1	104	92.9
Venezuela.....	11,357	24.3	19,565	20.6	3,778	29.1	8,903	52.6
<b>Totals, Foreign Countries<sup>1</sup>.....</b>	<b>32,590</b>	<b>5.4<sup>2</sup></b>	<b>32,431</b>	<b>3.9<sup>2</sup></b>	<b>122,342</b>	<b>7.0<sup>2</sup></b>	<b>123,081</b>	<b>7.8<sup>2</sup></b>
<b>Grand Totals.....</b>	<b>37,700</b>	<b>6.3<sup>2</sup></b>	<b>35,113</b>	<b>4.2<sup>2</sup></b>	<b>215,438</b>	<b>12.4<sup>2</sup></b>	<b>203,750</b>	<b>12.9<sup>2</sup></b>

<sup>1</sup> Includes other countries not specified.  
5 or 6 less United States imports or exports.<sup>2</sup> Percentage calculated on grand totals of Tables

## 5.—Total Value of Imports, by Countries, 1942-48, with Averages, 1935-39

Country	Averages 1935-39	1942	1943	1944	1945	1946	1947	1948
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>British and Commonwealth Countries</b>								
United Kingdom.....	124,047	161,113	134,965	110,599	140,517	201,433	189,370	299,502
Ireland.....	69	70	2	3	9	53	76	85
Aden.....	4	24	2	3	2	—	—	5,531
British East Africa.....	2,683	3,477	1,174	1,081	1,539	3,603	7,683	9,543
Southern Rhodesia.....	316	301	1,146	356	542	93	181	484
Northern Rhodesia.....	—	—	—	—	—	—	29	19
Union of South Africa.....	4,210	4,732	3,770	5,551	8,433	7,892	4,228	3,816
Other British South Africa.....	—	—	—	—	—	—	1	1
Gold Coast.....	701	2,653	1,713	1,758	6,367	5,381	6,493	9,751
Nigeria.....	370	579	951	2,402	3,422	4,772	2,149	4,939
Sierra Leone.....	2	3	1	—	9	—	18	5
Anglo-Egyptian Sudan.....	31	68	19	34	67	53	26	36
India.....	17,867	21,346	17,091	27,878	30,568	27,877	42,250	33,400
Pakistan.....	—	—	—	—	—	—	—	1,306
Burma.....	281	67	—	—	—	1	3	2
Ceylon.....	6,064	6,784	5,605	4,262	5,682	3,745	11,653	11,182
British Malaya.....	38,737	14,651	8 <sup>a</sup>	—	—	5,871	16,908	21,878
Other British East Indies.....	141	30	—	—	—	—	30	52
Bermuda.....	90	209	27	490	94	122	57	139
British Guiana.....	8,429	6,091	8,255	7,225	9,338	12,187	12,358	15,380
British Honduras.....	342	272	428	456	450	1,221	584	834
Barbados.....	3,948	700	5,115	8,207	5,466	5,548	7,776	6,387
Jamaica.....	6,782	5,572	9,350	12,624	9,273	10,484	6,371	9,557
Trinidad and Tobago.....	3,899	2,009	758	979	3,101	4,137	5,654	9,027
Bahamas.....	—	—	—	—	—	—	615	648
Leeward and Windward Islands.....	2,184	714	1,044	1,147	857	788	199	308
Falkland Islands.....	—	273	1,041	244	424	—	—	—
Hong Kong.....	916	410 <sup>a</sup>	1 <sup>a</sup>	—	—	163	982	1,866
Malta.....	—	32	10	3	21	56	12	5
Newfoundland.....	4,273	5,116	7,176	9,306	16,600	9,268	9,427	11,091
Australia.....	19,235	12,889	11,453	12,540	17,180	19,754	14,222	27,415
Fiji.....	3,849	3,091	2,301	3,628	1,607	3,123	4,178	8,275
New Zealand.....	13,552	19,892	24,776	8,744	9,276	11,956	10,331	11,603
Other British Oceania.....	—	282	6	229	409	420	—	—
Palestine.....	70	327	444	605	415	500	31	49
<b>Totals, British and Commonwealth Countries..</b>	<b>359,942</b>	<b>273,777</b>	<b>238,631</b>	<b>220,354</b>	<b>271,668</b>	<b>340,501</b>	<b>354,394</b>	<b>504,114</b>
<b>Foreign Countries</b>								
Abyssinia.....	5	—	—	—	2	1	9	38
Afghanistan.....	1	7	1	58	2,079	1,587	—	—
Argentina.....	5,374	9,739	10,199	9,564	7,333	14,372	17,961	5,746
Austria.....	245	—	—	—	—	—	89	281
Belgium.....	6,328	6	1	—	380	4,429	10,120	13,661
Belgian Congo.....	5	504	1,736	792	333	664	815	1,644
Bolivia.....	26	26	—	14	25	32	8	—
Brazil.....	920	11,166	4,800	7,224	7,601	14,018	13,888	20,559
Burma.....	—	—	—	—	—	—	—	6
Chile.....	125	792	596	723	562	424	339	332
China.....	3,344	117	21	2	1	2,321	2,304	3,912
Colombia.....	5,139	1,997	5,021	13,782	11,678	9,708	9,197	8,668
Costa Rica.....	77	1,493	1,529	1,361	594	1,546	727	3,107
Cuba.....	615	5,913	8,552	4,229	7,512	13,228	23,751	22,606
Czechoslovakia.....	1,979	—	—	—	—	964	3,645	4,809
Denmark.....	165	1	—	—	6	157	1,455	9,585
Greenland.....	311	1,471	1,254	128	271	271	—	—
Dominican Republic.....	4	612	169	4,962	6,201	7,127	8,186	17,270
Ecuador.....	41	48	260	566	1,964	157	207	889
Egypt.....	728	1,061	57	179	213	252	205	1,490
El Salvador.....	19	794	1,208	2,561	1,502	2,428	1,324	1,166
Estonia.....	23	—	—	—	—	—	—	4
Finland.....	70	1	—	—	—	23	30	39

<sup>1</sup> Less than \$500.<sup>2</sup> Included under "foreign countries".<sup>3</sup> Ex-bond.

## 5.—Total Value of Imports, by Countries, 1942-48, with Averages, 1935-39—concluded

Country	Averages 1935-39	1942	1943	1944	1945	1946	1947	1948
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>Foreign Countries—concl<sup>1</sup></b>								
France.....	6,382	21	6	9	273	4,610	8,755	12,648
French Africa.....	61	—	76	32	308	353	252	112
French East Indies.....	126	—	—	4	—	—	1	9
French Oceania.....	3	47	216	8	44	22	18	—
French West Indies.....	1	2	—	87	94	3	19	57
Madagascar.....	31	70	52	80	119	123	18	28
St. Pierre and Miquelon...	26	17	24	13	11	7	15	11
Germany.....	10,364	2 <sup>2</sup>	—	—	2	11	498	1,720
Greece.....	47	13	1	—	2	64	95	144
Guatemala.....	67	1,098	1,070	2,693	1,779	2,928	9,488	8,209
Haiti.....	63	221	686	2,097	514	778	227	176
Honduras.....	49	168	193	1,349	8,017	15,573	6,999	6,182
Hungary.....	130	—	—	—	—	—	50	103
Iceland.....	3	102	1	24	31	9	30	76
Iraq (Mesopotamia).....	357	18	—	—	974	1,489	1,502	799
Italy.....	2,403	1 <sup>2</sup>	3	1	1	2,704	3,872	6,981
Italian Africa.....	1	—	—	—	1	4	3	—
Japan.....	4,649	1,045 <sup>2</sup>	7 <sup>2</sup>	—	—	3	350	3,144
Latvia.....	11	1	—	—	—	—	—	1
Liberia.....	14	1	—	8	12	—	—	7
Lithuania.....	4	—	—	—	—	60	25	2
Mexico.....	667	4,970	12,503	13,119	13,508	14,610	16,980	27,258
Morocco.....	32	—	—	—	111	18	36	346
Netherlands.....	3,984	36	47 <sup>2</sup>	51	401	2,497	3,530	5,831
Indonesia.....	1,800	1,141	123 <sup>2</sup>	22	18	57	200	2,261
Netherlands Guiana.....	1	1,920	6,998	1,109	—	59	519	873
Netherlands Antilles.....	150	877	976	508	830	3,186	8,648	7,286
Nicaragua.....	1	10	218	1	1	29	87	172
Norway.....	742	—	—	—	641	836	4,999	1,103
Panama.....	32	156	78	6	34	38	2,107	1,226
Paraguay.....	62	559	560	208	241	264	232	230
Persia (Iran).....	126	71	10	27	406	274	299	959
Peru.....	3,554	936	692	95	149	847	407	1,989
Philippine Islands.....	563	106	—	—	1	2,058	8,063	6,442
Poland.....	185	1	—	—	—	1	3	22
Portugal.....	265	450	557	1,308	1,658	2,188	1,409	1,177
Azores and Madeira.....	157	105	89	47	63	241	655	364
Portuguese Africa.....	15	356	91	128	306	510	392	77
Roumania.....	96	—	—	—	—	1	1	19
Spain.....	989	406	908	3,024	4,353	4,484	3,002	2,586
Canary Islands.....	10	1	—	—	—	—	2	7
Sweden.....	2,044	79	2	24	1,093	3,681	3,184	2,763
Switzerland.....	3,110	3,898	3,752	4,766	7,863	11,149	11,941	7,444
Syria.....	6	6	15	30	19	71	30	28
Thailand (Siam).....	84	3	—	—	—	12	28	79
Turkey.....	293	40	14	2	277	1,880	2,672	1,064
Union of Soviet Socialist Republics.....	341	1	2	16	1,747	1,519	181	4
United States.....	418,738	1,304,680	1,423,672	1,447,226	1,202,418	1,405,297	1,974,679	1,805,763
Alaska.....	93	462	825	136	113	389	744	1,323
American Virgin Islands..	1	—	—	—	—	32	16	46
Guam.....	1	—	—	—	—	50	—	—
Hawaii.....	186	4	3	1	6	346	709	796
Puerto Rico.....	13	24	17	67	51	198	270	1,583
Uruguay.....	180	1,322	551	248	95	618	321	714
Venezuela.....	1,662	9,274	6,004	13,826	17,267	26,886	46,688	94,758
Yugoslavia.....	99	—	—	—	—	2	23	5
<b>Totals, Foreign Countries</b>	<b>489,621</b>	<b>1,370,465</b>	<b>1,496,446</b>	<b>1,538,544</b>	<b>1,314,107</b>	<b>1,586,778</b>	<b>2,219,550</b>	<b>2,132,831</b>
<b>Grand Totals.....</b>	<b>684,582</b>	<b>1,644,242</b>	<b>1,735,077</b>	<b>1,758,898</b>	<b>1,585,775</b>	<b>1,927,279</b>	<b>2,573,944</b>	<b>2,636,945</b>

<sup>1</sup> Less than \$500.<sup>2</sup> Ex-bond.



## 6.—Value of Domestic Exports, by Countries, 1942-48, with Averages, 1935-39

Country	Averages 1935-39	1942	1943	1944	1945	1946	1947	1948
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>British and Commonwealth Countries</b>								
United Kingdom.....	353,741	741,717	1,032,647	1,235,030	963,238	597,506	751,198	686,914
Ireland.....	3,861	4,816	4,985	11,971	14,278	7,956	17,598	9,257
Aden.....	109	50	79	127	156	256	1,602	2,653
British East Africa.....	789	5,067	18,707	6,209	3,787	2,220	4,682	3,473
Southern Rhodesia.....	970	1,247	1,386	1,187	2,008	3,284	7,369	2,711
Northern Rhodesia.....							450	606
Union of South Africa.....	15,457	27,543	35,611	23,597	31,593	68,633	66,674	83,248
Other British South Africa.....							15	6
Gambia.....	35	414	553	73	33	63	66	26
Gold Coast.....	270	984	2,062	683	890	871	1,652	2,072
Nigeria.....	145	1,147	3,565	912	318	1,021	2,285	876
Sierra Leone.....	203	1,851	1,434	852	376	410	811	717
Other British West Africa.....	1	—	—	—	1	—	2	6
Anglo-Egyptian Sudan.....	109	128	224	47	94	510	1,028	42
India.....	3,732	167,884	134,576	174,794	307,461	49,046	42,947	33,698
Pakistan.....								7,775
Burma.....	71	434	—	—	478	442	823	2
Ceylon.....	246	1,325	7,364	6,199	8,290	2,140	4,079	1,710
British Malaya.....	2,173	3,168	—	—	1,114	3,224	7,464	9,288
Other British East Indies.....	5	—	—	—	2	51	9	16
Bermuda.....	1,381	2,802	2,011	2,472	2,511	3,805	5,108	4,102
British Guiana.....	1,344	6,132	5,740	5,738	6,418	7,109	10,273	8,229
British Honduras.....	255	163	227	532	884	1,110	1,375	1,151
Barbados.....	1,218	1,761	2,955	4,248	4,750	6,205	9,063	5,654
Jamaica.....	3,887	6,881	8,986	13,884	14,404	15,500	18,214	12,350
Trinidad and Tobago.....	3,372	14,756	13,706	16,474	16,433	19,140	26,354	17,105
Bahamas.....							3,688	3,636
Leeward and Windward Islands.....	1,600	2,931	4,365	5,819	6,865	8,341	7,592	6,177
Falkland Islands.....	1	27	62	115	8	2	39	1
Gibraltar.....	9	6	18	395	586	333	252	15
Hong Kong.....	1,651	1	—	—	99	4,362	6,397	8,256
Malta.....	377	40	990	3,056	4,740	4,671	6,705	3,250
Newfoundland.....	8,048	50,832	43,473	47,950	40,515	38,229	55,085	55,055
Australia.....	28,924	78,866	46,686	43,513	32,226	38,194	60,294	38,257
Fiji.....	387	324	297	461	261	375	1,386	492
New Zealand.....	12,799	30,336	28,114	11,916	19,102	16,110	37,386	18,375
Other British Oceania.....	25	5	22	28	64	20	63	156
Palestine.....	251	180	816	2,169	2,866	3,562	8,473	5,036
<b>Totals, British and Commonwealth Countries..</b>	<b>447,444</b>	<b>1,153,817</b>	<b>1,401,661</b>	<b>1,620,451</b>	<b>1,486,848</b>	<b>904,701</b>	<b>1,168,501</b>	<b>1,032,391</b>
<b>Foreign Countries</b>								
Abyssinia.....	1	—	1	4	7	30	94	74
Afghanistan.....	1	—	—	—	6	1	36	43
Albania.....	3	—	—	—	497	122	505	90
Argentina.....	4,696	4,165	3,677	3,645	6,003	14,039	31,697	16,680
Austria.....	27	—	—	—	1	3,679	3,070	3,110
Belgium.....	13,204	—	—	1	34,618	63,626	52,749	33,035
Belgian Congo.....	89	2,612	2,781	1,225	945	1,201	1,292	2,241
Bolivia.....	113	261	198	206	319	529	567	1,046
Brazil.....	4,012	3,738	4,964	7,324	16,748	24,602	31,660	28,601
Bulgaria.....	10	—	—	—	—	9	14	123
Burma.....	—	—	—	—	—	—	—	173
Chile.....	848	1,059	1,028	1,649	2,562	3,565	4,392	4,495
China.....	3,808	7,803	1	14,901	6,573	42,915	34,984	29,128
Colombia.....	1,296	1,215	1,338	2,215	5,011	8,930	9,950	8,406
Costa Rica.....	103	218	174	314	521	873	1,780	1,216
Cuba.....	1,418	2,117	2,416	3,725	4,535	5,270	7,502	10,987
Czechoslovakia.....	881	—	—	—	6,717	9,871	13,779	11,895
Denmark.....	1,438	—	—	—	109	1,527	4,328	7,748
Greenland.....	—	414	336	49	888	234	128	88
Dominican Republic.....	171	152	125	398	732	1,541	1,914	2,386
Ecuador.....	93	250	215	301	360	801	1,626	1,308
Egypt.....	399	213,128	188,664	108,290	36,417	15,086	10,922	10,205
El Salvador.....	69	196	155	275	386	454	665	1,103

<sup>1</sup> Less than \$500.<sup>2</sup> Included under "foreign countries".

6.—Values of Domestic Exports, by Countries, 1942-48, with Averages, 1935-39—concluded

Country	Averages 1935-39	1942	1943	1944	1945	1946	1947	1948
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>Foreign Countries—concl.</b>								
Finland.....	539	—	—	—	1	507	1,212	2,280
France.....	8,566	—	—	15,865	76,917	74,380	81,058	92,963
French Africa.....	248	612	71,311	32,163	16,908	8,945	4,598	2,747
French East Indies.....	85	—	—	—	1	269	858	498
French Guiana.....	36	63	66	29	50	180	264	129
French West Indies.....	80	140	24	178	143	121	230	153
Madagascar.....	157	40	49	208	351	1,278	1,743	538
St. Pierre and Miquelon.....	13	—	618	72	54	263	177	408
Germans.....	309	585	542	580	737	784	1,158	1,432
Greece.....	9,639	—	—	—	2,724	6,867	6,690	13,214
Guatemala.....	1,142	2,423	6,150	8,574	25,563	9,739	5,440	9,663
Haiti.....	117	243	242	349	424	928	1,630	1,548
Honduras.....	131	390	279	505	612	1,121	1,366	1,393
Hungary.....	159	242	123	114	188	624	641	677
Iceland.....	4	—	—	—	1	1,063	946	820
Iraq (Mesopotamia).....	28	2,708	2,164	2,654	3,681	3,123	2,485	1,845
Italy.....	55	20,159	22,067	5,747	3,494	3,231	2,160	831
Libya.....	2,785	—	8,815	160,118	89,470	20,387	35,688	32,379
Other Italian Africa.....	1	—	—	—	19	3	7	5
Japan.....	2	—	—	49	6	1,027	559	8,001
Korea.....	21,880	—	—	—	—	126	30	23
Liberia.....	3	12	18	19	84	67	143	129
Mexico.....	17	—	—	—	—	10,536	11,700	15,045
Morocco.....	2,630	5,584	8,330	6,273	8,165	9,192	1,447	1,700
Netherlands.....	711	5	7	1,282	1,189	33,883	55,940	43,684
Indonesia.....	10,062	—	—	1	39,970	6,883	5,807	7,959
Netherlands Guiana.....	801	548	—	—	856	476	826	695
Netherlands Antilles.....	49	128	133	195	174	1,399	1,844	2,175
Nicaragua.....	176	3,474	484	329	799	366	590	701
Norway.....	72	185	215	251	317	19,267	20,320	23,429
Panama.....	7,247	—	—	—	7,842	1,502	1,882	4,123
Paraguay.....	316	765	735	673	1,006	85	153	369
Persia (Iran).....	8	2	15	30	44	431	946	684
Peru.....	118	124	446	1,005	3,957	3,080	3,695	2,529
Philippine Islands.....	1,072	1,026	767	1,339	2,153	8,901	10,448	9,810
Poland.....	1,523	—	—	—	9,249	22,501	15,380	5,804
Portugal.....	805	—	—	—	2,356	2,662	3,502	5,181
Azores and Madeira.....	170	343	888	620	21	71	392	77
Portuguese Africa.....	8	1	—	69	812	2,128	1,898	3,258
Portuguese Asia.....	1,675	185	120	381	4	76	147	104
Roumania.....	1	—	—	—	—	1	102	440
Spain.....	52	—	—	—	—	695	941	596
Canary Islands.....	495	11	169	90	49	333	46	12
Spanish Africa.....	17	—	45	—	—	—	62	54
Sweden.....	9	—	5	1	—	—	—	—
Switzerland.....	3,593	9	44	16	4,169	9,133	17,461	7,207
Syria.....	80	6,270	11,580	16,129	10,922	8,636	14,196	19,389
Thailand (Siam).....	948	28	69	67	630	228	2,546	6,094
Turkey.....	22	—	—	—	—	58	415	609
Union of Soviet Socialist Republics.....	388	412	14,452	7,064	710	1,618	2,229	2,012
United States.....	336	36,603	57,660	103,264	58,820	17,705	4,866	112
Alaska.....	321,294	885,523	1,149,233	1,301,322	1,196,977	887,941	1,034,226	1,500,987
American Virgin Islands.....	154	246	89	278	223	276	300	865
Guam.....	42	54	24	8	18	110	160	116
Hawaii.....	2	1	1	1	5	5	199	318
Puerto Rico.....	1,207	933	2,907	1,956	3,934	2,758	3,299	5,867
Uruguay.....	425	870	1,279	1,971	2,301	2,926	2,605	2,300
Venezuela.....	310	884	843	1,331	1,857	2,671	3,371	4,201
Yugoslavia.....	1,139	797	736	1,810	4,053	11,086	12,989	16,935
	18	—	—	—	11,710	12,030	6,729	2,250
<b>Totals, Foreign Countries</b>	<b>437,092</b>	<b>1,209,956</b>	<b>1,569,814</b>	<b>1,819,502</b>	<b>1,731,482</b>	<b>1,407,514</b>	<b>1,606,401</b>	<b>2,043,047</b>
<b>Grand Totals</b>	<b>884,536</b>	<b>2,363,773</b>	<b>2,971,475</b>	<b>3,439,953</b>	<b>3,218,330</b>	<b>2,312,215</b>	<b>2,774,902</b>	<b>3,075,438</b>

¹ Less than \$500.

**7.—Value of Trade with the Commonwealth and Foreign Countries, significant years, 1886-1948**

Item and Year	Canadian Trade with —							
	United Kingdom		United States		Other Commonwealth Countries		Other Foreign Countries	
	Value	P.C. of Total	Value	P.C. of Total	Value	P.C. of Total	Value	P.C. of Total
	\$'000		\$'000		\$'000		\$'000	
<b>Imports</b>								
Ended Mar. 31—								
1886.....	39,033	40.7	42,819	44.6	2,384	2.5	11,757	12.2
1891.....	42,019	37.7	52,033	46.7	2,318	2.1	15,163	13.5
1896.....	32,825	31.2	53,529	50.8	2,389	2.2	16,619	15.8
1901.....	42,820	24.1	107,373	60.3	3,833	2.2	23,900	13.4
1906.....	69,184	24.4	169,256	59.6	14,606	5.1	30,694	10.9
1911.....	109,935	24.3	275,824	60.8	19,533	4.4	47,433	10.5
1916.....	77,404	15.2	370,881	73.0	27,826	5.5	32,091	6.3
1921.....	213,974	17.3	856,177	69.0	52,029	4.2	117,979	9.5
Ended Dec. 31—								
1926.....	164,707	16.3	668,747	66.3	49,907	5.0	124,980	12.4
1929.....	194,778	15.0	893,585	68.8	62,287	4.8	148,343	11.4
1930.....	162,632	16.1	653,676	64.8	65,183	6.5	126,987	12.6
1937.....	147,292	18.2	490,505	60.7	89,304	11.0	81,796	10.1
1939.....	114,007	15.2	496,898	66.1	74,893	10.0	65,257	8.7
1941.....	219,419	15.1	1,004,498	69.4	140,523	9.7	84,351	5.8
1942.....	161,113	9.8	1,304,680	79.3	112,664	6.9	65,786	4.0
1943.....	134,965	7.7	1,423,672	82.1	103,666	6.0	72,773	4.2
1944.....	110,599	6.3	1,447,226	82.3	109,755	6.2	91,318	5.2
1945.....	140,517	8.9	1,202,418	75.8	131,151	8.2	111,689	7.1
1946.....	201,433	10.4	1,405,297	72.0	139,067	7.2	181,482	9.4
1947.....	189,370	7.4	1,974,679	76.7	165,024	6.4	244,871	9.5
1948.....	299,502	11.4	1,805,763	68.5	204,612	7.7	327,069	12.4
<b>Exports (Domestic)</b>								
Ended Mar. 31—								
1886.....	36,694	47.2	34,284	44.1	3,263	4.2	3,515	4.5
1891.....	43,244	48.8	37,743	42.6	3,893	4.4	3,791	4.2
1896.....	62,718	57.2	37,789	34.4	4,048	3.7	5,152	4.7
1901.....	92,858	52.3	67,984	38.3	7,891	4.5	8,700	4.9
1906.....	127,456	54.2	83,546	35.5	10,965	4.6	13,516	5.7
1911.....	132,157	48.2	104,116	38.0	16,811	6.1	21,233	7.7
1916.....	451,852	60.9	201,106	27.1	30,677	4.2	57,974	7.8
1921.....	312,845	26.3	542,323	45.6	90,607	7.6	243,389	20.5
Ended Dec. 31—								
1926.....	459,223	36.4	457,878	36.3	95,701	7.6	248,439	19.7
1929.....	290,295	25.2	492,686	42.8	105,006	9.1	264,430	22.9
1930.....	235,214	27.2	373,424	43.3	81,129	9.4	173,917	20.1
1937.....	402,062	40.3	360,012	36.1	104,159	10.4	131,134	13.2
1939.....	328,099	35.5	380,392	41.1	102,707	11.1	115,728	12.3
1941.....	658,228	40.6	599,713	37.0	220,413	13.6	142,649	8.8
1942.....	741,717	31.4	885,523	37.5	412,100	17.4	324,433	13.7
1943.....	1,032,647	34.8	1,149,232	38.7	369,015	11.2	420,581	14.2
1944.....	1,235,030	35.9	1,301,322	37.8	385,421	12.4	515,180	15.1
1945.....	963,238	29.9	1,196,977	37.2	523,610	16.3	534,506	16.6
1946.....	597,506	25.8	887,941	38.4	307,195	13.3	519,574	22.4
1947.....	751,198	27.1	1,034,226	37.3	417,303	15.0	572,175	20.6
1948.....	686,914	22.3	1,500,987	48.8	345,477	11.3	542,060	17.6



## 8.—Values of Dutiable and Free Imports from Principal Commonwealth and Foreign Countries, 1939, 1947 and 1948

Country	1939			1947			1948		
	Duti- able	Free	Total	Duti- able	Free	Total	Duti- able	Free	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>British and Commonwealth Countries</b>									
United Kingdom.....	52,589	61,419	114,008	76,499	112,871	189,370	134,787	164,715	299,502
Ireland.....	10	123	133	27	49	76	23	61	84
British East Africa.....	757	1,869	2,626	655	7,027	7,682	8	9,535	9,543
Southern Rhodesia.....	1	—	1	71	109	181	102	382	484
Northern Rhodesia.....	—	—	—	26	2	28	19	—	19
Union of South Africa.....	784	3,206	3,990	654	3,574	4,228	886	2,930	3,816
Other British South Africa	—	—	—	—	—	—	—	—	—
Gold Coast.....	251	—	251	3,518	2,976	6,493	7,958	1,793	9,751
Nigeria.....	2	52	54	1,618	531	2,149	3,791	1,149	4,939
India (includes Pakistan).....	5,185	4,623	9,808	12,383	29,867	42,250	2,040	32,666	34,706
Ceylon.....	2,169	1,394	3,563	9,383	2,270	11,653	984	10,198	11,182
British Malaya.....	783	12,362	13,145	192	16,716	16,908	191	21,687	21,878
Bermuda.....	8	58	66	10	47	57	14	125	139
British Guiana.....	4,540	2,352	6,892	2,546	9,812	12,358	8,235	7,145	15,380
Barbados.....	2,376	1,498	3,874	332	7,443	7,776	2,524	3,862	6,387
Jamaica.....	2,323	2,034	4,357	2,373	3,998	6,371	7,668	1,889	9,557
Trinidad and Tobago.....	2,143	525	2,668	749	4,906	5,654	2,679	6,347	9,026
Bahamas.....	—	—	—	81	534	615	28	620	648
Leeward and Windward Is.	770	810	1,580	—	199	199	2	306	308
Newfoundland.....	8	1,947	1,955	50	9,376	9,426	39	11,052	11,091
Australia.....	4,718	6,551	11,269	2,049	12,173	14,222	1,361	26,054	27,415
Fiji.....	2,776	2	2,778	1,699	2,479	4,179	7,963	312	8,275
New Zealand.....	143	4,123	4,266	1,325	9,506	10,831	193	11,410	11,603
<b>Totals, British and Commonwealth Countries<sup>1</sup></b>	<b>83,313</b>	<b>105,588</b>	<b>188,901</b>	<b>117,026</b>	<b>237,367</b>	<b>354,394</b>	<b>182,964</b>	<b>321,150</b>	<b>504,114</b>
<b>Foreign Countries</b>									
Argentina.....	1,939	2,467	4,406	14,672	3,289	17,961	730	5,016	5,746
Belgium.....	4,155	2,623	6,778	5,438	4,683	10,120	8,776	4,885	13,661
Brazil.....	817	294	1,111	7,432	6,455	13,888	14,026	6,533	20,559
China.....	2,526	250	2,776	1,179	1,125	2,304	2,879	1,093	3,912
Colombia.....	648	4,789	5,437	6,039	3,158	9,197	8,637	31	8,668
Cuba.....	812	77	889	7,957	15,795	23,751	21,867	740	22,606
Czechoslovakia.....	155	36	191	3,360	285	3,645	4,457	352	4,809
Denmark.....	123	74	197	186	1,269	1,455	401	9,183	9,585
Dominican Republic.....	16	—	16	1,085	7,101	8,186	17,262	8	17,270
El Salvador.....	44	1	45	1,338	4	1,342	1,150	16	1,166
France.....	4,671	1,356	6,027	5,340	3,415	8,755	7,190	5,459	12,648
Germany.....	6,969	1,978	8,947	182	316	498	1,068	662	1,730
Guatemala.....	164	—	164	9,389	98	9,488	8,139	70	8,209
Honduras.....	17	—	17	2,995	4,004	6,999	6,177	5	6,182
Iraq (Mesopotamia).....	475	4	479	1,500	1	1,501	799	—	799
Italy.....	1,937	417	2,354	2,853	1,019	3,872	4,699	2,282	6,981
Mexico.....	471	8	479	4,723	12,257	16,980	2,175	25,083	27,258
Netherlands.....	2,248	1,547	3,795	2,604	926	3,530	2,900	2,932	5,831
Netherlands Antilles.....	—	270	270	8,321	327	8,648	6,910	376	7,286
Norway.....	585	95	680	4,901	98	4,999	986	117	1,103
Panama.....	72	1	73	1,937	170	2,107	956	270	1,226
Philippine Islands.....	265	186	451	75	7,988	8,063	385	6,057	6,442
Portugal.....	169	106	275	855	554	1,409	754	423	1,177
Spain.....	518	144	662	2,050	953	3,003	1,375	1,211	2,586
Sweden.....	1,755	534	2,289	2,558	626	3,184	2,072	691	2,763
Switzerland.....	2,772	687	3,459	10,746	1,195	11,941	6,222	1,222	7,444
Turkey.....	229	176	405	2,650	21	2,672	750	314	1,064
Union of Soviet Socialist Republics.....	322	121	443	35	146	181	2	2	4
United States.....	302,559	194,340	496,899	1,327,497	647,182	1,974,679	1,052,661	753,101	1,805,763
Venezuela.....	54	1,889	1,943	346	46,342	46,688	517	94,242	94,758
<b>Totals, Foreign Countries<sup>1</sup></b>	<b>344,158</b>	<b>217,997</b>	<b>562,155</b>	<b>1,445,664</b>	<b>773,887</b>	<b>2,219,550</b>	<b>1,199,238</b>	<b>933,593</b>	<b>2,132,831</b>
<b>Grand Totals.....</b>	<b>427,471</b>	<b>323,584</b>	<b>751,055</b>	<b>1,562,690</b>	<b>1,011,254</b>	<b>2,573,944</b>	<b>1,382,202</b>	<b>1,254,743</b>	<b>2,636,945</b>

<sup>1</sup> Includes other countries not specified.

**9.—Average Ad Valorem Rates of Duty Collected and Percentage Proportions of Imports from the United Kingdom and from the United States to Totals of Dutiable and Free Imports, 1939-48.**

NOTE.—Figures for the fiscal years 1868-1938 are given at p. 532 of the 1940 edition of the Year Book.

Year	United Kingdom					United States				
	Average Ad Valorem Rates of Duty on—		Dutiable to Total Dutiable	Free to Total Free	Per-centage of All Imports	Average Ad Valorem Rates of Duty on—		Dutiable to Total Dutiable	Free to Total Free	Per-centage of All Imports
	Dutiable Imports	Total Imports				Dutiable Imports	Total Imports			
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
1939...	27.0	12.4	12.3	19.0	15.2	21.3	13.0	70.7	60.1	66.2
1940...	24.8	8.4	9.3	21.4	14.0	20.3	12.4	78.0	58.0	68.8
1941...	23.4	4.7	6.0	24.5	15.1	18.8	11.6	84.7	53.6	69.3
1942...	24.2	5.8	5.4	13.2	9.8	19.0	9.2	88.2	72.5	79.3
1943...	18.7	5.2	4.5	10.8	7.8	18.9	10.0	90.2	74.0	82.1
1944...	16.3	6.1	4.7	7.9	6.3	18.7	10.2	89.0	75.5	82.3
1945...	17.5	4.7	4.7	13.1	8.9	19.3	11.1	86.6	64.8	75.8
1946...	17.5	4.5	4.8	17.7	10.5	19.4	12.7	85.4	57.0	72.9
1947...	15.9	6.4	4.9	11.3	7.4	19.5	13.1	84.9	64.0	76.7
1948...	17.1	7.7	9.8	13.1	11.4	15.7	9.1	76.2	60.0	68.5

**Section 4.—Trade by Commodities**

The tables in this Section provide detailed information about the composition of Canada's imports and exports, with commodities shown by groups and individually.

**10.—Imports and Exports, by Main Groups, 1939, 1947 and 1948**

Group	Imports			Domestic Exports			Total Trade <sup>1</sup>		
	1939	1947	1948	1939	1947	1948	1939	1947	1948
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>United Kingdom</b>									
Agricultural and veget- able products.....	13,033	8,125	15,295	94,205	319,854	271,922	107,250	328,090	287,240
Animals and products...	4,304	5,635	9,464	73,577	150,863	138,118	77,941	156,528	147,654
Fibres and textiles.....	41,194	91,236	146,392	3,464	1,560	1,891	44,783	93,095	148,942
Wood and paper.....	3,046	2,542	3,034	43,937	136,119	100,642	47,020	138,704	103,766
Iron and its products...	19,253	27,514	50,825	15,977	21,721	21,910	35,420	49,774	73,019
Non-ferrous metals....	5,108	16,136	20,774	83,363	98,937	131,866	88,516	115,114	152,675
Non-metallic minerals...	12,020	16,651	23,762	3,430	6,788	7,683	15,507	23,562	31,571
Chemicals and allied products.....	7,375	6,360	6,787	5,731	8,084	7,314	13,117	14,639	14,157
Miscellaneous commod- ities.....	8,674	15,171	23,169	4,415	7,272	5,565	13,339	23,528	29,175
<b>Totals, United King- dom.....</b>	<b>114,007</b>	<b>189,370</b>	<b>299,502</b>	<b>328,099</b>	<b>751,198</b>	<b>686,914</b>	<b>442,893</b>	<b>913,034</b>	<b>988,199</b>
<b>United States</b>									
Agricultural and veget- able products.....	45,361	169,727	116,555	79,469	65,807	139,322	125,187	237,105	256,906
Animals and products...	16,936	57,210	44,209	44,117	94,130	217,941	61,942	153,483	263,714
Fibres and textiles.....	41,564	217,026	111,246	2,306	10,393	17,035	44,791	229,543	130,151
Wood and paper.....	28,687	82,741	67,375	165,824	611,560	754,937	194,797	694,890	822,975
Iron and its products...	158,138	725,898	713,127	4,954	57,466	92,219	164,805	789,700	811,589
Non-ferrous metals....	29,243	120,333	109,192	49,538	100,269	166,546	79,557	222,726	277,662
Non-metallic minerals...	106,095	304,282	456,373	16,161	45,112	57,463	124,664	413,145	517,640
Chemicals and allied products.....	30,668	99,587	106,060	9,684	31,906	33,568	40,634	132,427	140,620
Miscellaneous commod- ities.....	40,206	137,875	81,626	8,339	17,583	21,956	50,275	153,257	106,691
<b>Totals, United States.</b>	<b>496,595</b>	<b>1,974,679</b>	<b>1,805,763</b>	<b>380,392</b>	<b>1,034,223</b>	<b>1,509,987</b>	<b>886,652</b>	<b>3,031,276</b>	<b>3,327,948</b>

<sup>1</sup> Includes exports of foreign produce.

## 10.—Imports and Exports, by Main Groups, 1939, 1947 and 1948—concluded

Group	Imports			Domestic Exports			Total Trade <sup>1</sup>		
	1939	1947	1948	1939	1947	1948	1939	1947	1948
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>All Countries</b>									
Agricultural and vegetable products.....	127,835	356,278	349,919	220,118	683,697	643,698	348,651	1,042,820	995,268
Animals and products...	32,758	86,909	84,702	131,804	331,445	434,925	165,537	420,697	521,282
Fibres and textiles.....	100,866	390,589	350,619	14,428	49,347	45,554	116,435	442,997	399,098
Wood and paper.....	33,703	89,548	73,730	242,541	886,192	953,674	276,578	976,614	1,028,290
Iron and its products.....	183,160	762,359	792,255	63,102	273,156	281,465	248,297	1,047,186	1,077,074
Non-ferrous metals.....	42,108	160,926	155,812	182,890	303,937	395,948	225,852	467,408	553,934
Non-metallic minerals.....	132,824	452,198	606,182	29,332	74,614	94,914	164,660	531,979	705,627
Chemicals and allied products.....	43,706	113,085	118,380	24,263	83,804	79,840	68,299	198,756	199,887
Miscellaneous commodities.....	54,090	162,052	115,346	16,448	88,710	145,420	72,669	257,277	266,414
<b>Totals, All Countries..</b>	<b>751,056</b>	<b>2,573,944</b>	<b>2,636,945</b>	<b>924,926</b>	<b>2,774,902</b>	<b>3,073,438</b>	<b>1,686,978</b>	<b>5,385,734</b>	<b>5,746,974</b>

<sup>1</sup> Includes exports of foreign produce.

Tables 11 and 12 provide an excellent survey of the changing nature and value of Canadian commodity trade from 1926 to 1948.

## 11.—Leading Imports, 1926, 1930, 1940 and 1946-48

NOTE.—Commodities are arranged in order of importance, 1948.

Commodity	1926	1930	1940	1946	1947	1948
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Petroleum, crude and refined.....	50,994	64,822	63,787	116,835	198,285	292,734
Machinery, except agricultural.....	38,684	50,435	71,497	130,287	206,012	217,091
Coal.....	59,760	56,694	49,630	120,354	138,950	186,388
Farm implements and machinery.....	17,631	21,944	30,673	68,352	105,405	139,993
Automobile parts.....	27,466	23,359	47,580	66,453	98,432	101,261
Rolling-mill products.....	47,710	46,509	55,610	53,376	77,970	83,929
Cotton products.....	32,858	25,563	24,646	74,761	119,413	78,518
Sugar and products.....	37,883	26,496	29,115	39,879	57,420	71,752
Wool products.....	39,199	33,339	20,611	34,744	54,393	67,322
Electrical apparatus, <i>n.o.p.</i> .....	16,697	30,281	21,250	47,788	68,773	62,127
Fruits.....	29,523	30,974	27,943	95,496	77,477	59,561
Cotton, raw and linters.....	23,722	14,653	25,884	44,397	60,481	56,829
Engines and boilers.....	13,908	10,827	12,385	29,462	43,882	50,285
Wool, raw and unmanufactured.....	10,159	6,007	26,353	29,825	30,070	47,744
Rubber and products.....	29,991	12,842	35,115	20,079	28,730	31,607
Books and printed matter.....	13,433	16,827	16,655	30,737	31,935	21,268
Nuts.....	4,621	4,158	4,167	22,591	22,050	31,027
Clay and products.....	8,196	10,747	11,125	17,825	24,059	30,773
Grains and products.....	17,197	16,628	7,388	20,197	36,453	30,565
Artificial silk and products.....	5,500	13,781	6,692	22,103	34,493	29,680
Automobiles, freight and passenger.....	24,381	20,560	15,438	31,702	69,540	27,303
Flax, hemp, jute and products.....	15,643	11,808	14,993	23,142	37,873	27,259
Glass and glassware.....	8,515	8,285	10,141	23,258	28,626	25,925
Furs and products.....	12,560	9,585	8,886	27,292	22,451	24,568
Coffee and chicory.....	6,104	5,135	3,666	16,162	14,382	23,914
Oils, vegetable.....	12,244	11,518	10,050	15,062	25,642	20,912
Stone and products.....	5,747	7,059	7,584	14,676	18,357	20,084



## 11.—Leading Imports, 1926, 1930, 1940 and 1946-48—concluded

Commodity	1926	1930	1940	1946	1947	1948
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Coal products.....	7,521	6,359	6,080	12,728	14,739	19,839
Pipes, tubes and fittings.....	3,835	4,103	4,448	8,411	13,464	18,598
Scientific and educational equipment.....	2,877	4,290	6,291	13,820	18,359	17,909
Tea.....	12,517	12,660	10,805	10,208	20,655	17,739
Aluminum and products.....	4,870	6,296	8,946	14,693	17,183	17,662
Paper.....	10,978	12,908	8,858	18,834	23,027	17,213
Cocoa and chocolate.....	3,329	2,956	2,949	5,626	7,415	16,460
Precious metals, except gold.....	2,631	2,164	8,199	13,897	12,996	16,010
Beverages, alcoholic.....	28,339	37,937	6,031	12,911	13,727	15,692
Iron ore.....	2,854	3,324	5,512	6,467	12,717	15,507
Synthetic resins and products.....	—	—	2,839	14,519	16,304	15,012
Paints and varnishes.....	4,378	4,664	5,501	9,437	13,441	14,277
Wood, manufactured.....	9,336	9,210	5,653	11,467	17,958	13,766
Drugs and medicines.....	3,101	3,652	4,337	9,371	11,653	13,164
Wire and chain.....	4,084	3,337	4,452	5,563	9,413	12,653
Brass, copper and products.....	11,457	13,753	6,447	9,454	13,121	12,146
Animal oils, fats and greases.....	2,487	2,027	1,546	4,685	13,728	11,872
Wood, unmanufactured.....	12,698	11,029	6,934	8,586	16,628	11,484
Tools.....	2,337	2,351	4,101	10,135	11,454	10,999
Scrap iron.....	956	1,223	5,797	2,163	4,197	10,454
Leather, manufactured and unmanufactured.....	9,031	9,728	5,659	9,243	14,033	10,410
Hardware and cutlery.....	3,760	3,740	3,203	7,431	10,388	10,144
Dyeing and tanning materials.....	3,654	3,372	7,265	9,209	10,415	10,117
Castings and forgings.....	4,688	2,823	4,318	7,445	8,598	9,793
Hides and skins, raw.....	9,201	6,047	6,181	3,651	12,011	8,351
Tin.....	3,486	1,855	6,346	6,109	6,820	7,936
Aircraft and parts.....	—	—	10,646	9,448	12,284	7,854
Vegetables.....	6,352	9,345	7,712	27,242	24,822	7,523
Cooking and heating apparatus.....	652	2,026	3,028	10,462	13,047	6,828
Fertilizers.....	3,593	5,960	4,141	4,561	6,585	6,298
Gums and resins.....	3,362	2,672	2,140	5,635	6,183	6,214
Refrigerators and parts.....	—	2,101	3,870	5,201	12,134	5,816
Fish and fishery products.....	2,585	3,011	2,475	4,599	5,073	5,520

## 12.—Leading Domestic Exports, 1926, 1930, 1940 and 1946-48

NOTE.—Commodities are arranged in order of importance, 1948.

Commodity	1926	1930	1940	1946	1947	1948
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Newsprint paper.....	114,091	133,371	151,360	265,865	342,293	383,123
Wheat.....	362,978	185,786	119,530	250,306	265,200	243,023
Wood-pulp.....	52,077	39,060	60,930	114,021	177,803	211,564
Planks and boards.....	61,943	36,743	67,737	125,391	208,375	196,023
Flour of wheat.....	71,994	37,540	26,352	126,733	196,578	125,151
Aluminum and products.....	7,140	9,930	34,325	56,030	63,956	102,046
Fish and fishery products.....	35,982	31,050	31,651	86,486	82,359	85,028
Ships and vessels.....	437	708	101	17,856	23,965	81,448
Copper and products.....	15,009	31,355	52,659	37,005	59,298	79,036

## 12.—Leading Domestic Exports, 1926, 1930, 1940 and 1946-48—concluded

Commodity	1926	1930	1940	1946	1947	1948
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Grains, other than wheat.....	39,015	3,405	10,097	44,724	50,103	75,321
Cattle.....	13,294	3,398	12,442	18,015	14,980	73,899
Nickel.....	12,461	20,505	61,163	55,205	60,443	73,802
Farm machinery and implements.....	16,935	10,302	9,537	28,662	42,238	73,760
Bacon and hams.....	22,769	3,635	58,814	66,389	62,081	69,960
Meats, other than bacon and hams.....	8,873	3,934	4,475	62,547	40,776	63,399
Seeds.....	9,035	3,188	3,358	13,228	16,693	49,748
Pulpwood.....	14,067	13,612	12,522	28,731	34,529	43,573
Zinc and products.....	8,615	6,254	12,038	27,769	30,193	42,496
Asbestos and products.....	10,705	8,653	15,833	24,481	32,969	41,979
Machinery, except agricultural.....	4,451	6,109	13,458	15,535	41,022	40,539
Automobiles, freight and passenger.....	32,737	18,799	54,306	57,194	71,497	39,746
Eggs, shell and processed.....	685	71	2,771	26,772	36,968	39,163
Fertilizers.....	4,664	5,606	8,584	32,108	34,386	36,374
Lead and products.....	13,780	8,274	9,490	16,846	30,945	34,684
Paper, other than newsprint.....	7,324	5,069	19,519	21,573	30,840	33,559
Rubber and products.....	25,970	25,243	12,950	22,477	33,125	33,151
Alcoholic beverages.....	24,539	22,767	9,334	36,296	28,478	29,278
Precious metals, except gold.....	13,528	11,589	14,053	21,469	22,581	25,478
Furs and products.....	19,490	15,357	16,176	32,291	29,048	24,118
Ferro-alloys.....	3,413	2,694	6,007	9,485	21,545	24,057
Rolling-mill products.....	2,686	1,535	6,886	7,528	10,935	23,773
Milk products, other than cheese.....	16,464	6,154	4,681	12,975	15,538	18,331
Electrical apparatus, <i>n.o.p.</i> .....	1,695	2,291	3,283	20,939	19,135	16,822
Automobile parts.....	5,485	1,588	10,290	21,110	20,142	15,340
Vegetable fats and oils.....	166	83	578	5,346	6,497	14,726
Animals, living, other than cattle.....	4,835	1,280	1,294	5,183	5,034	13,606
Abrasives, artificial, crude.....	2,908	2,842	7,601	11,727	13,110	13,381
Leather and products.....	8,591	5,522	8,000	16,938	20,320	13,019
Wool and products.....	1,633	1,120	1,561	18,945	8,863	12,091
Cheese.....	24,858	13,207	15,723	21,948	14,162	12,042
Coal.....	5,739	3,346	2,362	5,946	5,441	11,556
Aircraft and parts.....	—	—	5,985	9,507	5,900	11,290
Fruits.....	7,244	10,401	5,862	15,124	14,890	11,132
Cotton products.....	786	814	9,372	10,551	11,238	10,233
Vegetables.....	13,891	9,942	5,175	13,754	17,557	9,541
Locomotives and parts.....	37	12	89	26,981	15,672	8,792
Tobacco.....	2,047	1,329	2,744	6,446	14,157	8,392
Artificial silk and products.....	34	242	2,160	8,293	11,761	7,171
Petroleum, crude and refined.....	2,019	2,367	1,033	4,039	3,921	6,618
Railway cars and parts.....	57	206	40	26,342	3,368	6,593
Paints and varnishes.....	502	481	2,325	4,407	7,346	6,235
Sugar and products.....	17,643	3,274	1,643	4,120	7,650	5,826
Acids.....	2,421	2,816	2,727	2,060	3,713	5,728
Hardware and cutlery.....	3,445	1,687	3,563	4,176	5,693	5,316
Iron ore.....	7	3	924	4,353	6,023	5,301
Soda and sodium compounds.....	3,421	3,140	5,935	4,414	5,232	4,840
Brass and products.....	854	1,461	2,262	3,373	3,875	4,677
Electrical energy.....	..	4,244	4,892	7,070	5,611	4,376
Books and printed matter.....	1,035	1,196	909	6,276	5,439	4,368
Films.....	4,593	4,537	2,469	2,510	3,305	3,916

**Detailed Imports and Exports.**—Detailed statistics of all commodities of any importance imported into Canada from all countries, from the United Kingdom and from the United States during the calendar years 1945-48 are given in Table 13 while corresponding statistics for domestic exports appear in Table 14.

## 13.—Principal Imports into Canada for Consumption from All Countries,

NOTE.—Dashes in this table indicate import figures not recorded.

No.	Item	All Countries			
		1945	1946	1947	1948
<b>I. Agricultural and Vegetable Products</b>					
A. MAINLY FOOD					
Fruits—					
1	Fruits, fresh..... \$	61,337,524	69,587,133	51,702,628	38,806,933
2	Fruits, dried..... lb. \$	104,910,885	130,452,602	122,369,623	94,304,651
		7,126,591	13,921,168	13,789,199	10,372,736
3	Fruits, canned or preserved..... \$	1,811,953	3,910,639	6,171,501	5,725,810
4	Fruit juices and fruit syrups..... gal. \$	1,482,851	10,002,428	10,285,577	7,828,413
		1,213,104	8,077,469	5,813,481	4,655,527
	Totals, Fruits..... \$	71,489,172	95,496,409	77,476,809	59,561,006
5	Nuts..... \$	14,321,516	22,591,472	22,050,188	31,027,036
Vegetables—					
6	Vegetables, fresh..... \$	21,251,605	25,747,714	18,977,802	6,845,449
7	Vegetables, dried..... \$	91,385	455,507	398,776	102,727
8	Vegetables, canned..... lb. \$	2,597,244	4,502,898	31,717,971	2,251,100
		336,379	536,286	2,852,361	310,954
9	Pickles, sauces and catsups..... gal. \$	247,950	460,597	2,042,521	320,954
		352,395	503,037	2,592,689	264,194
	Totals, Vegetables..... \$	22,031,764	27,242,544	24,821,628	7,523,324
Grains and Farinaceous Products—					
10	Grains..... \$	9,447,127	15,259,716	30,580,243	27,649,298
11	Milled products..... \$	689,396	744,812	1,165,641	1,155,586
12	Prepared foods and bakery products..... \$	387,120	1,623,994	3,648,569	1,273,553
13	Other farinaceous products..... \$	1,983,446	2,568,665	1,058,695	486,139
	Totals, Grains and Farinaceous Products \$	12,507,089	20,197,187	36,453,148	30,564,576
14	Oils, vegetable, for food..... \$	643,798	2,591,290	2,604,740	2,046,136
15	Sugar and its products..... \$	32,104,387	39,878,697	57,420,210	71,751,972
16	Cocoa and chocolate..... \$	3,890,619	5,626,169	7,414,541	16,459,648
17	Coffee and chicory..... lb. \$	55,496,972	85,848,068	52,672,136	88,286,198
		9,155,591	16,162,208	14,381,738	23,913,935
18	Spices..... lb. \$	2,894,646	4,634,586	5,791,775	4,527,993
		880,106	1,302,394	1,679,260	1,928,472
19	Tea..... lb. \$	53,454,367	29,851,837	47,390,998	36,206,451
		17,729,139	10,207,699	20,655,157	17,738,846
20	Other vegetable products mainly food..... \$	2,636,192	3,464,139	3,647,250	3,655,287
	TOTALS, A. MAINLY FOOD..... \$	187,389,373	244,760,208	268,604,669	266,170,238
B. OTHER THAN FOOD					
Beverages, Alcoholic—					
21	Brewed..... \$	36,756	12,309	52,010	157,720
22	Distilled..... pf. gal. \$	1,541,404	2,153,129	2,526,853	2,377,849
		6,898,404	10,200,116	11,820,261	13,534,500
23	Wines..... \$	1,356,994	2,698,421	1,854,818	1,999,800
	Totals, Beverages, Alcoholic..... \$	8,292,154	12,910,846	13,727,089	15,692,020
24	Gums and resins..... \$	3,930,659	5,635,368	6,182,854	6,213,823
25	Oil cake and oil cake meal..... cwt. \$	48,740	85,148	957,520	72,880
		202,509	435,987	3,531,826	377,925
26	Oils, vegetable, not food..... \$	10,835,582	12,470,757	23,037,274	18,865,747
27	Plants, shrubs, trees and vines..... \$	967,590	1,960,266	2,006,033	1,703,563
28	Rubber and manufactures of..... \$	15,097,626	20,078,647	28,729,591	31,606,871
29	Seeds..... \$	1,597,758	1,612,305	1,766,618	1,823,555
30	Tobacco and manufactures of..... \$	2,620,942	3,364,090	3,183,805	3,170,373
31	Other vegetable products, not food..... \$	4,623,908	7,524,447	5,507,787	4,295,146
	TOTALS, B. OTHER THAN FOOD..... \$	48,168,728	65,992,713	87,672,877	83,749,023
	<b>Totals, Agricultural and Vegetable Products..... \$</b>	<b>235,558,101</b>	<b>310,752,921</b>	<b>356,277,546</b>	<b>349,919,261</b>



## the United Kingdom and the United States, Calendar Years 1945-48

NOTE.—Dashes in this table indicate import figures not recorded.

United Kingdom				United States				No
1945	1946	1947	1948	1945	1946	1947	1948	
—	—	—	—	47,210,515	47,768,026	33,935,440	18,543,842	1
—	—	—	—	58,663,235	70,926,347	61,601,421	41,677,802	2
—	—	—	—	3,400,042	8,564,414	7,559,210	4,400,059	3
370	28,077	48,340	98,675	241,512	528,004	3,680,861	668,274	2
—	71	20	278	750,724	7,719,285	9,823,280	7,100,792	4
—	372	161	4,552	668,290	6,152,592	5,429,444	3,900,779	
370	28,449	48,501	103,227	51,520,359	63,013,036	50,604,955	27,512,954	
—	23,659	17,380	19,596	5,901,824	10,232,870	10,128,746	14,345,080	5
—	—	—	296	18,705,598	22,586,615	16,046,528	5,189,843	6
—	—	3,375	3,314	77,548	446,298	370,413	56,527	7
—	—	—	—	2,576,340	4,487,903	31,571,009	2,030,596	8
—	—	—	—	332,351	531,497	2,808,222	246,129	
92	10,378	37,914	5,242	224,930	386,583	1,860,935	206,194	9
380	49,115	109,090	16,239	327,652	389,633	2,303,834	66,813	
380	49,115	112,465	19,849	19,443,149	23,954,043	21,528,997	5,558,812	
—	104	81	215	9,424,656	11,760,710	30,344,964	27,632,443	10
—	—	727	1,792	664,968	534,418	1,098,099	1,139,093	11
303	55,869	398,327	895,403	385,327	1,562,491	3,218,369	313,875	12
168	4,508	1,472	1,485	1,894,697	2,498,711	664,554	251,434	13
471	60,481	400,607	898,895	12,369,648	16,356,330	35,325,986	29,336,845	
—	1,508	—	—	586,368	2,378,189	2,335,695	1,553,311	14
169	6,776	723,583	1,324,774	588,562	1,800,777	3,380,685	560,511	15
68,838	986	1,761	485,923	5,187	31,514	273,243	38,904	16
—	248,132	355,634	322,360	1,338,020	1,364,890	1,626,922	354,255	17
—	202,794	290,921	296,800	379,939	485,999	980,238	204,868	
15,456	17,212	151,612	650,234	715,684	1,177,945	1,454,062	516,053	18
2,499	5,587	44,467	426,617	210,618	385,425	588,528	282,961	
—	—	710,997	280,428	—	544	2,688,279	44	19
—	—	316,425	140,033	—	685	1,176,212	63	
2,518	5,357	47,797	110,422	2,625,796	3,441,871	3,413,012	3,487,782	20
75,245	384,712	1,963,907	3,826,136	93,631,450	122,080,739	129,736,297	82,882,091	
—	—	—	—	—	—	—	—	
26,851	6,652	51,435	157,587	9,905	5,657	575	133	21
511,466	593,346	694,562	989,796	323,618	393,905	777,008	515,397	22
3,855,715	4,390,123	5,293,871	8,492,300	759,447	997,089	2,424,282	1,346,516	23
13,744	19,601	29,652	108,624	31,423	213,711	71,505	47,795	
3,896,310	4,416,376	5,374,958	8,758,511	800,775	1,216,457	2,496,362	1,394,444	
15,234	68,326	65,241	57,336	2,969,672	3,621,986	4,434,199	4,614,958	24
—	—	—	—	85,148	957,520	72,880	72,880	25
—	—	—	—	202,509	435,987	3,531,826	377,925	
14,239	52,597	98,261	1,872,522	3,635,312	4,104,524	6,240,596	6,348,703	26
57,105	31,577	25,337	42,325	524,753	679,999	875,562	555,378	27
57,641	394,683	358,867	520,495	14,081,445	14,797,997	15,067,756	14,041,446	28
52,554	39,186	37,748	16,631	1,339,198	1,318,921	1,421,936	1,455,106	29
110,817	242,815	90,359	95,759	1,122,569	1,172,026	1,262,364	1,435,513	30
39,988	65,931	110,052	105,641	3,911,535	6,117,288	4,660,096	3,419,560	31
4,243,888	5,311,491	6,160,823	11,469,220	28,587,768	33,465,185	39,990,697	33,673,033	
4,319,133	5,696,203	8,124,730	15,295,356	122,219,218	155,545,924	169,726,994	116,555,124	

## 13.—Principal Imports into Canada for Consumption from All Countries,

No.	Item	All Countries			
		1945	1946	1947	1948
<b>II. Animals and Animal Products</b>					
1	Animals, living..... \$	1,580,873	3,051,946	3,411,689	3,343,749
2	Bone, ivory and shell products..... \$	656,216	716,784	1,148,187	1,056,664
3	Feathers and quills and manufactures of..... \$	280,634	573,550	457,446	411,636
Fishery Products, <i>n.o.p.</i> —					
4	Fish, fresh or frozen..... \$	2,455,104	3,042,740	2,197,078	2,537,354
5	Fish, salted, dried, smoked or pickled.... lb.	2,741,104	6,028,215	6,608,168	8,613,218
		271,726	571,584	625,975	886,767
6	Fish, canned or preserved, <i>n.o.p.</i> ..... \$	74,206	362,697	1,446,604	1,378,490
7	Other fishery products, <i>n.o.p.</i> ..... \$	307,390	622,424	803,137	716,893
Totals, Fishery Products, <i>n.o.p.</i> ..... \$		3,108,426	4,599,445	5,072,794	5,519,504
8	Furs and manufactures of..... \$	21,205,173	27,291,573	22,451,123	24,567,786
9	Hairs and bristles and manufactures of..... \$	1,647,624	1,962,011	2,153,199	1,994,917
10	Hides and skins, raw (except fur skins)..... cwt.	121,689	95,687	350,083	225,669
		3,059,479	3,651,169	12,011,454	8,351,403
11	Leather, unmanufactured..... \$	3,510,208	4,181,544	6,574,170	4,985,015
12	Leather, manufactured..... \$	3,05,560	5,061,512	7,458,996	5,425,317
13	Meats..... \$	537,615	2,346,997	3,098,409	825,266
14	Milk and its products..... \$	349,940	1,125,041	3,269,901	10,704,387
15	Oils, fats, greases and waxes..... \$	3,800,993	4,685,242	13,727,925	11,871,509
16	Other animal products..... \$	3,835,583	4,990,192	6,073,872	5,644,502
Totals, Animals and Animal Products. \$		46,625,324	64,237,006	86,909,165	84,701,655
<b>III. Fibres and Textiles</b>					
Cotton and Its Products—					
17	Cotton, raw and unmanufactured..... lb.	203,309,152	192,605,905	204,960,867	183,526,275
		40,494,990	44,657,276	60,815,782	57,182,285
18	Yarn, thread and cordage..... lb.	7,820,123	9,135,967	16,051,614	9,408,666
		7,208,054	9,197,478	16,608,358	12,899,324
19	Piece goods (fabrics)..... lb.	39,911,082	46,292,835	68,029,445	39,629,699
		34,943,856	54,163,285	82,573,765	52,815,466
20	Other cotton products..... \$	6,757,734	11,139,627	19,895,772	12,449,997
Totals, Cotton and Its Products..... \$		89,404,634	119,157,666	179,893,677	135,347,072
21	Flax, hemp, jute and manufactures of..... \$	17,829,455	23,141,786	37,872,619	27,258,801
22	Silk and manufactures of..... \$	2,089,026	4,041,232	7,421,092	3,842,813
Wool and Its Products—					
23	Wool, raw and unmanufactured..... lb.	33,978,067	65,412,385	52,083,030	60,795,229
		19,202,347	29,824,538	30,069,562	47,743,965
24	Piece goods (fabrics)..... lb.	6,275,951	8,488,055	10,929,002	13,089,207
		14,193,624	20,114,640	29,663,026	42,647,648
25	Other woollen products..... \$	10,322,729	14,628,986	24,730,395	24,674,496
Totals, Wool and Its Products..... \$		43,718,700	64,568,164	84,462,983	115,066,109
26	Artificial silk (rayon) and manufactures of. \$	20,848,983	22,103,194	34,492,534	29,679,683
27	Other textile products..... \$	22,870,424	31,108,484	46,446,164	39,424,702
Totals, Fibres and Textiles..... \$		196,761,222	264,120,526	390,589,069	350,619,180
<b>IV. Wood, Wood Products and Paper</b>					
28	Lumber and timber..... M ft.	51,315	59,107	114,942	42,919
		4,202,958	5,612,498	11,287,809	5,554,445
29	Other wood, unmanufactured..... \$	2,254,262	2,973,210	5,340,250	5,929,234
30	Wood, manufactured..... \$	8,482,578	11,466,655	17,957,942	13,765,673
31	Paper and manufactures of..... \$	13,376,067	18,834,089	23,027,200	17,212,565
32	Books and printed matter..... \$	21,444,851	30,736,954	31,934,970	31,268,051
Totals, Wood, Wood Products and Paper. \$		49,760,716	69,623,406	89,548,171	73,729,968

## the United Kingdom and the United States, Calendar Years, 1945-48—continued

United Kingdom				United States				No.
1945	1946	1947	1948	1945	1946	1947	1948	
83,708	165,844	234,136	264,741	1,495,819	2,878,293	3,158,840	3,037,239	1
83,256	160,067	232,516	342,769	544,529	477,205	770,905	542,230	2
44,727	41,963	17,759	20,971	222,922	483,426	315,705	306,571	3
—	—	—	411	602,805	700,587	699,123	626,846	4
—	1,820	33,680	80,659	557,488	893,747	536,375	368,840	5
—	267	6,095	12,520	73,254	133,882	92,953	58,812	6
—	106	33,201	39,464	17,360	158,580	345,925	79,088	7
2,448	5,674	3,236	3,029	232,706	488,637	564,336	482,783	8
2,448	6,047	42,532	55,424	926,125	1,481,686	1,702,337	1,247,529	9
262,775	765,577	697,737	437,805	9,078,294	14,764,115	18,586,408	21,153,883	10
7,172	21,739	15,469	21,351	1,213,930	996,574	1,826,321	1,810,439	11
—	215	—	—	11,649	16,847	276,530	144,204	12
—	5,200	—	—	212,616	577,878	8,349,818	4,705,913	13
898,973	1,359,743	2,288,483	3,086,436	2,131,979	2,305,708	3,435,425	1,649,611	14
565,000	1,293,158	1,739,987	1,765,320	2,243,825	3,338,508	5,184,183	3,250,291	15
698	627	1,826	57,657	125,022	1,681,756	2,472,282	328,024	16
2,577	—	126	10,926	214,151	773,773	1,181,276	251,683	17
295,255	201,121	154,867	3,074,018	703,494	1,877,159	6,701,380	3,296,660	18
81,564	166,088	210,058	326,879	1,693,304	2,240,302	3,525,465	2,628,863	19
2,328,153	4,187,174	5,635,496	9,464,297	20,806,010	33,876,383	57,210,345	44,208,936	20
988	8,494	23,746	775	180,135,221	158,234,999	150,538,509	103,280,145	21
470	3,365	9,809	381	36,264,180	37,593,554	45,821,125	32,366,114	22
4,717,905	5,076,191	5,294,728	4,289,271	3,102,218	4,056,169	10,744,497	5,050,046	23
4,977,117	5,456,632	6,265,641	6,873,732	2,230,937	3,726,522	10,294,766	5,859,370	24
1,742,313	1,036,087	1,767,723	7,319,832	38,159,161	45,042,699	65,715,276	30,952,601	25
2,808,182	1,948,250	4,002,465	14,580,208	32,109,680	51,892,222	77,590,922	36,003,753	26
1,833,464	2,804,216	5,493,193	7,373,068	4,629,163	7,559,364	12,557,279	3,892,344	27
9,619,233	10,212,463	15,771,108	28,827,389	75,233,960	100,771,682	146,264,092	78,121,581	28
3,069,718	6,839,901	9,225,005	6,078,208	2,324,731	2,785,867	3,941,054	2,021,483	29
183,565	434,695	528,229	411,613	1,796,964	3,139,931	5,997,855	2,497,698	30
6,694,364	7,748,295	9,795,030	19,744,764	71,955	1,351,664	3,184,896	972,501	31
5,583,413	5,742,739	8,599,713	23,821,895	70,497	1,273,061	3,968,407	847,565	32
5,810,136	7,701,056	8,339,858	11,889,807	454,082	679,708	2,320,892	479,996	33
12,955,801	17,733,388	21,381,614	38,416,847	1,215,440	2,060,849	7,310,954	1,411,047	34
5,515,594	9,798,618	15,938,838	20,147,607	3,817,284	2,301,422	4,246,664	1,459,793	35
24,054,808	33,274,745	45,920,165	82,386,349	5,103,221	5,635,332	15,526,025	3,718,405	36
8,793,016	9,532,086	11,534,032	16,513,788	11,820,309	11,436,106	19,754,822	10,882,830	37
2,273,254	4,698,160	8,257,270	12,174,244	12,994,106	16,396,505	25,541,932	14,003,867	38
47,993,594	64,992,050	91,235,809	146,391,591	109,273,291	140,165,403	217,025,780	111,245,864	39
5	39	30	39	49,429	57,117	113,137	40,445	40
1,776	1,604	9,556	1,158	3,722,666	5,045,850	10,502,779	4,875,724	41
115	5,002	4,805	6,087	2,145,637	2,857,347	5,036,100	5,710,477	42
105,052	266,786	413,741	245,090	7,336,086	9,247,599	15,621,777	12,152,113	43
507,973	727,145	925,665	952,654	12,845,661	17,782,734	21,638,639	16,021,663	44
794,873	1,059,135	1,188,498	1,829,269	20,580,012	29,241,139	29,941,504	28,584,762	45
1,409,789	2,059,672	2,542,265	3,034,258	46,630,062	64,175,669	82,740,799	67,374,739	46



## 13.—Principal Imports into Canada for Consumption from All Countries.

No.	Item	All Countries			
		1945	1946	1947	1948
V. Iron and Its Products					
1	Iron ore..... ton	3,739,867	2,281,677	3,944,550	4,300,163
	\$	8,595,799	6,467,023	12,716,818	15,506,959
2	Ferro-alloys..... \$	1,015,540	676,927	1,657,533	1,246,017
3	Pigs, ingots, blooms and billets..... \$	2,050,839	629,241	793,655	4,470,587
4	Scrap iron or steel..... \$	818,021	2,162,748	4,197,477	10,453,507
5	Castings and forgings..... \$	8,186,092	7,445,409	8,598,084	9,793,464
6	Rolling-mill products..... \$	55,049,280	53,376,272	77,969,781	83,929,042
7	Tubes, pipes and fittings..... \$	5,641,488	8,411,415	13,464,380	18,598,169
8	Wire..... \$	4,314,531	3,927,855	6,556,151	9,016,453
9	Chains..... \$	1,886,515	1,635,528	2,857,312	3,636,607
10	Engines and boilers..... \$	28,039,843	29,462,014	43,882,425	50,284,809
11	Farm implements and machinery..... \$	50,435,476	68,351,742	105,404,869	139,993,374
12	Hardware and cutlery..... \$	4,672,734	7,431,482	10,388,169	10,143,978
13	Machinery (except agricultural)..... \$	92,780,717	130,286,814	206,011,544	217,090,260
14	Springs..... \$	517,862	785,386	188,634	179,656
15	Stamped and coated products..... \$	2,082,039	3,433,097	5,770,037	4,476,094
16	Tools and hand implements..... \$	7,944,826	10,135,395	11,454,000	10,998,696
	Vehicles, chiefly of Iron—				
17	Automobiles, freight..... No.	552	3,166	6,289	3,348
	\$	1,939,667	6,493,042	12,041,505	5,874,814
18	Automobiles, passenger..... No.	1,101	19,076	36,574	17,264
	\$	2,936,550	25,209,172	57,498,704	21,427,869
19	Automobile parts..... \$	67,855,156	66,453,145	98,431,717	101,261,033
20	Other vehicles..... \$	4,379,324	9,509,837	15,681,459	11,567,761
	Totals, Vehicles, chiefly of Iron..... \$	77,110,697	107,665,196	183,653,385	140,131,527
21	Other iron and steel products..... \$	33,317,599	48,784,962	66,794,743	52,305,980
	Totals, Iron and Its Products..... \$	384,459,898	491,068,506	762,358,997	782,255,184
VI. Non-Ferrous Metals					
	Aluminum—				
22	Bauxite..... cwt.	18,794,253	25,663,512	27,853,853	40,169,876
	\$	7,262,766	8,524,873	8,565,875	9,884,001
23	Aluminum and manufactures of, <i>n.o.p.</i> ..... \$	2,347,921	6,167,879	8,616,792	7,777,604
	Totals, Aluminum..... \$	9,610,687	14,692,752	17,182,667	17,661,605
24	Brass and manufactures of..... \$	4,470,209	7,316,721	10,175,400	9,733,687
25	Copper and manufactures of..... \$	1,185,721	2,137,031	2,945,611	2,412,568
26	Lead and manufactures of..... \$	334,823	146,004	164,904	290,858
27	Nickel and manufactures of..... \$	1,481,283	3,527,483	4,588,752	5,174,099
28	Precious metals and manufactures of..... \$	5,280,719	13,897,176	12,995,528	16,010,316
29	Tin and its products..... \$	5,122,147	6,108,650	6,819,533	7,936,494
30	Zinc and manufactures of..... \$	990,618	1,783,945	2,193,102	2,997,372
31	Alloys, <i>n.o.p.</i> ..... \$	801,756	1,046,065	1,282,436	1,557,752
32	Clocks and watches..... \$	7,333,360	7,808,075	9,026,133	5,302,153
33	Electrical apparatus, <i>n.o.p.</i> ..... \$	43,052,284	47,787,670	68,773,183	62,127,222
34	Gas apparatus..... \$	381,032	435,733	580,487	627,985
35	Printing materials..... \$	1,185,373	1,570,136	1,587,041	1,785,381
36	Other non-ferrous metals..... \$	17,889,521	12,023,964	22,611,181	22,194,475
	Totals, Non-Ferrous Metals..... \$	99,119,533	120,281,405	160,925,958	155,811,967
VII. Non-Metallic Minerals					
37	Asbestos and manufactures of..... \$	2,214,343	2,230,011	3,680,301	3,751,979
38	Clay and manufactures of..... \$	13,680,579	17,825,283	24,059,272	30,772,690
	Coal and Its Products—				
39	Coal, anthracite..... ton	3,412,739	4,631,387	4,281,682	5,244,837
	\$	27,568,369	41,987,460	41,012,759	56,380,098
40	Coal, bituminous and coal, <i>n.o.p.</i> ..... ton	21,648,817	21,475,212	24,610,248	25,629,075
	\$	74,863,605	78,366,960	97,937,026	130,007,653
41	Coke..... ton	1,436,772	1,122,856	832,289	851,791
	\$	11,368,606	10,888,234	11,483,959	14,584,678
42	Other coal products..... \$	1,393,062	1,839,870	3,254,834	5,254,072
	Totals, Coal and Its Products..... \$	115,193,642	133,082,524	153,688,578	206,226,501

## the United Kingdom and the United States, Calendar Years, 1945-48—continued

United Kingdom				United States				No.
1945	1946	1947	1948	1945	1946	1947	1948	
17	—	18	—	2,988,484	1,686,236	3,126,307	3,392,063	1
1,400	—	1,463	—	7,184,356	4,416,699	9,688,717	11,959,783	2
—	52,787	427,046	400,611	1,015,540	617,104	1,133,045	845,406	3
4,240	13,869	8,676	2,349	2,046,599	614,448	784,979	4,454,455	4
2,243	8,982	141,408	820	815,388	1,760,171	2,781,686	5,892,980	5
357,567	1,000,574	1,041,476	1,915,725	7,828,525	6,444,835	7,555,910	7,866,055	6
275,886	937,183	867,753	1,654,905	54,686,006	52,164,151	76,767,357	79,826,758	7
76,694	265,866	352,012	1,621,719	5,564,794	8,145,549	13,082,368	16,957,103	8
603,208	716,867	393,483	270,923	3,710,113	3,210,988	6,162,507	8,741,766	9
275,465	284,390	348,447	363,061	1,611,050	1,351,138	2,495,929	3,248,866	10
684,534	1,640,882	5,674,978	6,734,100	27,338,588	24,739,196	37,574,118	40,615,058	11
125,194	183,434	272,108	2,106,358	50,128,617	67,725,381	104,598,269	137,433,551	12
511,198	1,486,333	1,794,348	1,745,660	4,127,478	5,793,303	8,274,731	8,080,499	13
1,900,041	5,416,960	9,704,834	11,550,504	90,719,605	124,258,383	195,390,398	203,643,363	14
—	—	—	2,870	517,862	785,386	188,634	176,786	15
16,911	98,836	153,208	155,016	2,063,274	3,327,695	5,612,300	4,316,428	16
185,213	546,198	725,661	866,767	7,661,044	9,289,163	10,175,163	9,583,537	17
—	60	225	2,036	552	3,106	6,061	1,292	18
—	51,258	206,186	2,112,923	1,939,667	6,441,784	11,818,492	3,747,614	19
—	583	1,933	14,177	1,101	18,493	34,633	3,004	20
1,602	530,230	1,839,906	14,721,029	2,934,948	24,678,942	55,641,047	6,643,044	21
42,661	115,871	138,597	742,229	67,812,495	66,313,503	98,235,012	100,491,962	22
175,751	931,879	1,712,332	1,769,658	4,203,573	8,563,678	13,958,096	9,695,015	23
220,014	1,629,238	3,897,021	19,345,839	76,890,683	105,997,907	179,652,647	120,577,635	24
1,728,354	1,135,415	1,679,965	2,087,506	31,068,475	46,365,799	63,978,788	48,906,643	25
6,968,162	15,417,814	27,513,887	50,824,733	374,977,997	467,007,296	725,897,546	713,126,672	26
—	403	—	—	2,758,589	2,373,552	2,672,890	1,989,766	27
—	997	—	—	2,788,415	2,050,905	2,380,191	1,936,718	28
170,806	1,580,361	591,482	592,582	1,909,662	4,145,000	6,955,796	6,276,942	29
170,806	1,581,358	591,482	592,582	4,698,077	6,195,905	9,335,987	8,213,660	30
101,210	254,779	1,039,174	409,856	4,367,007	7,023,327	9,068,006	9,289,974	31
30,071	146,184	114,525	57,387	1,151,105	1,980,650	2,812,423	2,349,218	32
1,988	20,293	21,163	90,484	332,835	124,768	137,734	182,412	33
84,449	270,072	277,824	244,512	1,313,415	3,209,450	4,203,218	4,896,291	34
3,848,005	8,682,472	8,310,764	11,389,735	1,418,570	4,666,999	4,603,536	4,547,948	35
4,714,856	4,112,262	3,249	23,410	386,914	368,884	456,821	248,536	36
191	2,135	9,504	23,864	990,427	1,779,987	2,149,914	2,897,672	37
146,495	156,254	162,590	275,850	655,261	889,811	1,119,538	1,272,674	38
6,581	133,740	298,739	229,076	1,317,481	2,558,831	3,564,000	1,716,594	39
2,481,602	2,141,802	8,749,546	6,342,861	40,493,660	45,320,530	64,395,713	54,903,856	40
5,424	8,056	11,253	12,773	375,438	422,752	568,092	613,859	41
7,280	12,554	18,232	29,058	1,177,957	1,557,304	1,568,326	1,754,503	42
4,711,082	916,851	1,527,767	1,052,278	7,127,043	7,959,490	16,304,139	16,304,741	43
16,309,990	18,438,812	16,135,812	20,773,726	65,805,190	84,058,658	120,333,447	109,191,938	44
661,439	590,557	944,441	756,426	1,543,144	1,631,517	2,716,670	2,965,621	45
5,626,308	7,597,515	9,943,480	13,192,254	8,037,352	10,088,994	13,604,895	16,884,484	46
28,382	101,496	51,660	162,354	3,384,357	4,529,891	4,230,022	5,082,483	47
179,620	900,353	508,053	2,009,583	27,388,749	41,087,107	40,504,706	54,370,515	48
6	84	1,117	196	21,648,811	21,475,128	24,610,248	25,628,865	49
45	420	7,501	1,708	74,863,560	78,366,540	97,926,371	130,005,416	50
—	—	—	28	1,436,772	1,122,856	832,289	851,763	51
—	—	—	1,364	11,368,606	10,888,234	11,483,959	14,583,314	52
13,017	22,818	318,857	794,094	1,379,029	1,805,714	2,927,879	4,456,684	53
192,682	923,591	834,411	2,806,749	114,999,944	132,147,595	152,842,915	203,415,929	54

## 13.—Principal Imports into Canada for Consumption from All Countries,

No.	Item	All Countries			
		1945	1946	1947	1948
VII. Non-Metallic Minerals—concluded					
1	Glass and manufactures of..... \$	16,097,986	23,258,143	28,625,643	25,925,237
2	Graphite and its products..... \$	459,367	601,677	591,099	532,577
3	Mica and manufactures of..... \$	236,597	280,142	571,638	407,202
Petroleum, Asphalt and Products—					
4	Petroleum, crude..... M gal.	1,988,361	2,219,365	2,417,820	2,717,306
	..... \$	72,411,691	89,546,890	128,826,670	197,140,292
5	Fuel oil for ships' stores..... gal.	35,395,731	12,922,344	11,170,800	12,504,174
	..... \$	1,288,061	510,715	510,031	756,681
6	Coal oil and kerosene..... gal.	13,039,459	35,557,549	147,427,903	76,868,321
	..... \$	801,575	2,280,149	12,448,086	8,791,014
7	Gasoline..... gal.	78,550,544	176,658,361	229,086,957	322,607,355
	..... \$	9,571,414	14,911,781	25,521,588	46,461,672
8	Lubricating oils..... gal.	10,515,900	10,913,011	13,649,862	16,176,373
	..... \$	3,624,105	3,740,123	4,799,737	5,631,949
9	Other petroleum and asphalt products..... \$	7,359,169	12,753,267	35,087,685	43,001,093
Totals, Petroleum, Asphalt and Products \$		95,056,015	123,742,925	207,193,797	301,782,708
10	Stone and its products..... \$	9,887,719	14,676,273	18,357,343	20,084,245
11	Other non-metallic minerals..... \$	12,578,762	16,914,103	15,430,280	16,699,117
Totals, Non-Metallic Minerals..... \$		265,405,010	332,611,081	452,197,951	606,182,256
VIII. Chemicals and Allied Products					
12	Acids..... \$	3,302,751	3,228,005	3,510,121	3,926,038
13	Alcohols, industrial..... \$	306,372	688,618	1,615,990	1,493,303
14	Cellulose products..... \$	5,330,489	6,554,324	5,456,594	4,451,472
15	Drugs, medicinal and pharmaceutical products..... \$	9,440,067	9,370,879	11,653,203	13,163,602
16	Dyeing and tanning materials..... \$	8,296,920	9,208,514	10,414,778	10,117,384
17	Explosives..... \$	923,101	848,186	901,654	1,139,658
18	Fertilizers..... cwt.	3,869,118	5,094,973	6,612,184	6,426,175
	..... \$	3,706,518	4,561,115	6,584,828	6,297,690
19	Paints, pigments and varnishes..... \$	8,660,314	9,436,521	13,441,471	14,276,958
20	Perfumery, cosmetics and toilet preparations..... \$	402,176	720,645	723,403	192,706
21	Soap, common laundry..... lb.	2,884,502	6,065,092	8,514,627	7,003,678
	..... \$	227,943	538,637	1,086,150	967,683
22	Soap, other..... \$	177,505	423,832	1,731,616	519,109
Inorganic Chemicals, n.o.p.—					
23	Alum and compounds of aluminum and iron cwt.	736,531	582,416	123,049	74,596
	..... \$	1,017,291	768,859	204,451	173,848
24	Ammonia and its compounds..... lb.	5,288,075	9,202,540	9,946,701	5,648,585
	..... \$	196,760	326,877	280,160	214,206
25	Compounds of antimony, arsenic, copper, tin and zinc..... lb.	7,721,703	2,679,816	2,752,973	1,851,007
	..... \$	522,969	197,105	241,234	154,881
26	Potash and potassium compounds, n.o.p.... lb.	5,903,288	7,234,734	7,618,174	9,424,895
	..... \$	679,219	634,782	623,282	745,665
27	Soda and sodium compounds, n.o.p..... lb.	121,594,197	195,958,260	209,675,662	257,184,889
	..... \$	3,698,147	5,259,966	6,607,563	9,532,995
28	Other inorganic chemicals..... \$	5,156,052	5,376,377	5,830,359	7,659,213
Totals, Inorganic Chemicals, n.o.p..... \$		11,270,438	12,563,966	13,787,049	18,480,808
29	Other chemicals and allied products..... \$	27,714,061	34,730,871	42,177,847	43,353,410
Totals, Chemicals and Allied Products..... \$		79,758,655	92,874,113	113,084,704	118,379,821
IX. Miscellaneous Products					
30	Amusement and sporting goods, n.o.p..... \$	3,043,184	7,057,712	10,001,156	7,887,706
31	Brushes..... \$	387,453	749,717	740,716	642,912
32	Containers, n.o.p..... \$	1,622,918	2,283,147	3,091,257	3,654,264
33	Household and personal equipment..... \$	8,431,393	18,004,889	24,210,962	12,485,466
34	Mineral and aerated waters..... \$	7,239	42,798	36,828	56,822
35	Musical instruments..... \$	953,473	3,361,302	4,712,062	3,356,600
36	Scientific and educational equipment..... \$	9,215,794	13,819,553	18,358,863	17,909,541
37	Ships and vessels..... \$	3,319,764	937,814	3,153,508	1,820,161
38	Vehicles (except iron)..... \$	16,439,765	10,865,655	14,930,947	9,734,583
39	Works of art..... \$	1,163,742	1,693,428	1,691,458	1,864,816
40	Miscellaneous imports under special conditions \$	166,095,597	89,102,109	34,155,718	23,275,997
41	Other miscellaneous commodities..... \$	17,646,361	33,192,314	46,969,289	32,659,192
Totals, Miscellaneous Products..... \$		228,326,683	181,710,438	162,052,564	115,346,060
Grand Totals, Imports for Consumption..... \$		1,585,775,142	1,927,279,402	2,573,944,125	2,636,945,352



## the United Kingdom and the United States, Calendar Years, 1945-48—concluded

United Kingdom				United States				No.
1945	1946	1947	1948	1945	1946	1947	1948	
1,684,431	2,172,123	3,142,771	4,667,664	14,403,519	19,718,773	20,928,637	17,024,342	1
62,301	85,551	89,400	63,817	339,744	442,448	447,153	405,189	2
22,264	14,559	2,534	8,357	123,246	170,086	249,480	241,850	3
—	—	—	—	1,121,444	1,330,500	1,359,448	1,183,373	4
—	—	—	—	46,104,083	58,384,323	77,236,450	90,760,702	5
—	—	—	—	13,414,933	10,434,179	10,908,085	12,473,161	6
—	—	—	—	509,016	387,599	497,004	754,773	7
—	—	—	—	7,995,013	14,295,579	102,177,866	51,940,463	8
—	—	—	—	522,600	1,016,947	8,659,016	8,073,461	9
—	—	—	—	70,924,444	159,738,922	207,060,519	299,643,581	10
18	2,026	3,563	5,318	9,329,009	13,685,293	23,207,312	43,852,288	11
44	2,287	2,844	5,098	10,515,733	10,902,817	13,606,199	16,130,457	12
929	11,605	12,904	4,705	3,623,920	3,732,150	4,766,791	5,593,596	13
—	—	—	—	7,309,461	11,336,978	30,927,055	40,206,909	14
973	13,892	15,748	9,803	67,398,989	88,543,290	145,293,628	187,241,729	15
355,111	341,934	519,192	611,326	7,971,390	11,434,209	15,835,989	16,945,901	16
1,917,309	2,548,386	1,158,768	1,045,447	9,203,158	10,668,323	12,362,726	11,247,851	17
10,522,818	14,288,108	16,650,745	23,761,843	224,020,486	274,845,235	364,282,093	456,372,896	18
102,078	225,187	240,186	424,374	2,657,070	2,855,687	3,159,186	3,318,726	19
11,023	25	36,272	8,369	273,352	668,627	923,234	1,035,371	20
101,685	422,350	588,874	309,440	5,228,456	6,111,988	4,828,369	4,132,133	21
948,121	1,112,191	1,420,679	1,309,284	7,945,899	7,880,907	9,776,581	11,324,610	22
584,542	755,724	811,782	1,030,508	5,730,393	6,578,387	6,947,380	7,474,667	23
64,217	10,571	5,920	13,624	858,884	835,449	847,393	990,531	24
—	521	652	5	3,683,760	4,832,850	5,770,330	5,506,772	25
—	2,066	1,661	2,121	3,351,764	4,053,646	4,714,663	4,613,136	26
940,425	983,448	904,910	1,034,755	7,719,747	8,426,191	12,239,100	13,159,913	27
32,785	117,664	177,606	51,144	368,022	520,281	434,753	57,226	28
—	—	—	524	2,884,502	6,065,092	8,505,809	7,002,492	29
—	—	—	46	227,943	538,637	1,083,899	967,489	30
2,003	8,130	5,882	129,037	161,827	402,258	1,723,009	365,931	31
100,825	41,248	15,326	11,274	635,706	541,168	107,723	63,322	32
111,061	59,657	28,694	28,474	906,230	709,202	175,757	145,374	33
945,471	1,794,007	706,707	1,214,616	4,342,104	7,407,873	9,239,994	4,544,377	34
59,517	77,581	41,780	69,195	136,687	248,590	238,380	145,011	35
936,792	1,399,977	1,122,012	684,062	3,784,911	1,279,839	1,428,520	1,148,718	36
229,604	71,812	73,213	43,635	293,365	125,293	148,505	110,730	37
187,609	156,593	225,426	366,658	5,527,312	6,876,860	7,287,727	8,998,385	38
96,343	60,677	80,789	114,914	489,687	498,505	511,656	616,142	39
22,147,703	32,539,351	13,136,011	21,949,388	99,446,494	162,701,639	195,645,258	234,738,975	40
937,980	725,445	790,531	1,023,772	3,160,167	4,483,685	5,768,974	8,478,960	41
137,831	157,955	148,279	154,200	4,912,072	5,077,487	5,508,649	7,374,866	42
1,172,336	1,153,127	1,163,286	1,434,190	9,898,208	11,142,762	12,351,921	16,871,083	43
788,383	949,116	1,002,749	1,040,110	26,887,835	33,603,368	40,557,731	41,749,241	44
4,747,598	5,739,599	6,359,807	6,787,002	71,309,405	83,618,188	99,587,219	106,060,057	45
234,713	1,040,768	1,832,446	2,248,063	2,711,905	5,690,947	7,619,059	4,974,228	46
64,758	253,719	326,051	269,939	322,595	493,657	408,996	365,030	47
324,597	519,423	864,065	1,434,267	999,398	1,192,379	1,585,602	1,520,172	48
745,305	1,690,571	1,822,878	1,678,848	7,399,828	16,143,528	21,262,148	10,196,899	49
—	—	197	1,874	7,239	15,319	8,843	16,488	50
56,437	138,541	216,375	282,600	866,659	2,874,949	3,606,048	2,298,380	51
342,630	823,255	908,864	1,064,814	8,754,118	12,855,844	16,982,012	16,296,377	52
7,376	62,652	34,359	33,584	3,311,575	870,846	3,109,888	1,785,282	53
142,695	509,588	731,231	718,799	16,296,758	10,340,915	14,191,736	9,013,194	54
422,970	489,248	653,518	1,022,027	728,934	1,096,018	748,736	611,696	55
40,372,698	62,926,745	3,662,950	8,698,567	113,055,542	22,896,916	28,975,174	12,667,696	56
3,204,032	2,159,278	4,118,370	5,716,013	12,921,424	27,532,625	39,286,713	21,881,117	57
45,918,211	70,613,788	15,171,304	23,169,394	167,375,975	102,003,943	137,874,955	81,626,559	58
140,517,448	201,433,220	189,369,855	299,502,200	1,202,417,634	1,405,296,699	1,974,679,178	1,805,762,785	59

## 14.—Principal Exports of Canadian Produce from Canada to all Countries,

NOTE.—Dashes in this table indicate export figures not recorded.

No.	Item	All Countries			
		1945	1946	1947	1948
<b>I. Agricultural and Vegetable Products</b>					
A. MAINLY FOOD					
Fruits—					
1	Fruits, fresh..... \$	10,060,070	12,706,670	10,645,040	9,639,804
2	Fruits, dried..... lb.	6,409,808	208,084	1,275,894	990,570
	\$	1,172,106	58,502	142,572	152,463
3	Fruits, canned or preserved..... lb.	13,433,996	15,122,583	29,248,199	8,213,578
	\$	1,566,404	1,909,644	3,349,413	982,678
4	Fruit juices and fruit syrups..... gal.	585,528	200,132	444,572	317,383
	\$	1,106,833	449,556	753,352	356,677
	Totals, Fruits..... \$	13,905,413	15,124,372	14,890,377	11,131,622
5	Nuts..... \$	228,516	45,948	53,605	15,036
Vegetables—					
6	Vegetables, fresh..... \$	8,829,038	4,369,714	11,817,760	7,224,754
7	Vegetables, dried..... lb.	13,038,933	8,283,844	94,448	896
	\$	5,506,503	3,349,546	33,605	549
8	Vegetables, canned..... lb.	28,231,276	51,964,691	53,937,977	16,397,712
	\$	2,117,520	5,433,820	4,861,778	1,941,293
9	Pickles, sauces and catsups..... \$	1,142,697	601,282	844,186	374,795
	Totals, Vegetables..... \$	17,595,758	13,754,362	17,557,329	9,541,391
Grains and Farinaceous Products—					
10	Wheat..... bu.	329,672,842	157,529,350	160,426,359	135,640,729
	\$	475,786,639	250,305,507	265,200,441	243,023,370
11	Flour of wheat..... bbl.	13,730,584	14,984,287	18,081,832	12,378,066
	\$	97,854,944	126,733,077	196,578,113	125,150,839
12	Prepared foods and bakery products..... \$	2,442,411	3,008,798	3,706,749	5,737,089
13	Other farinaceous products..... \$	95,029,309	60,686,856	64,146,269	90,454,250
	Totals, Grains and Farinaceous Products..... \$	671,113,303	440,734,238	529,631,572	464,365,548
14	Oils, vegetable, for food..... cwt.	94,377	104,567	102,556	52,945
	\$	1,518,983	1,871,570	2,750,402	1,477,955
Sugar and Its Products—					
15	Confectionery, including candy..... \$	6,481,538	1,794,730	3,908,296	1,580,870
16	Maple sugar..... lb.	3,961,943	3,435,125	4,392,404	6,104,772
	\$	1,130,896	1,108,720	1,822,654	2,499,469
17	Other sugar and products..... \$	3,427,721	1,216,851	1,918,802	1,745,196
	Totals, Sugar and Its Products..... \$	11,040,155	4,120,301	7,649,752	5,825,535
18	Cocoa and chocolate..... \$	892,602	370,832	405,021	696,067
19	Coffee and chicory..... \$	31,291	44,272	108,242	115,683
20	Spices..... \$	1	86,684	85,558	48,230
21	Tea..... \$	1	1,501,045	1,762,826	1,081,430
22	Other vegetable products..... \$	1,574,015	1,619,797	1,391,362	1,542,905
	TOTALS, A. MAINLY FOOD..... \$	717,900,036	479,273,421	576,286,076	495,841,402
B. OTHER THAN FOOD					
Beverages, Alcoholic—					
23	Ale, beer and porter..... gal.	5,339,479	4,252,182	4,372,665	1,713,902
	\$	4,970,526	4,502,164	4,670,876	1,750,168
24	Whisky and other distilled beverages... pt. gal.	4,337,143	5,319,376	3,808,146	4,004,611
	\$	24,317,193	31,744,870	23,746,329	27,476,535
25	Wines..... gal.	65,944	25,064	32,956	23,975
	\$	118,077	49,016	60,907	50,979
	Totals, Beverages, Alcoholic..... \$	29,405,796	36,296,050	28,478,112	29,277,682
26	Gums and resins..... \$	43,519	52,999	35,417	45,926
27	Oil cake and oil cake meal..... cwt.	23,073	21,069	14,524	841,733
	\$	55,494	58,087	43,635	2,924,783
28	Oils, vegetable, not food..... \$	2,835,974	3,474,591	3,746,393	13,248,339
29	Plants, shrubs, trees and vines..... \$	115,960	234,649	211,743	126,277
30	Rubber and manufactures of..... \$	31,328,264	22,477,014	33,124,748	33,150,775

<sup>1</sup> Not given separately in 1945.

## the United Kingdom and the United States, Calendar Years 1945-48

NOTE.—Dashes in this table indicate export figures not recorded.

United Kingdom				United States				No.
1945	1946	1947	1948	1945	1946	1947	1948	
1,393,797	6,498,924	2,743,206	—	8,244,150	5,149,706	5,779,645	7,504,862	1
5,353,256	—	793,813	—	348,298	11,870	141,324	745,964	2
955,937	—	42,775	—	28,118	1,024	14,512	111,297	3
4,209,548	9,974,206	20,249,152	4,488,991	3,819,162	315,286	127,540	718,449	4
648,489	1,100,744	1,872,580	292,606	256,853	52,927	23,337	134,121	5
49,456	—	168,165	—	418,336	110,763	183,897	217,428	6
33,883	—	342,149	—	911,967	266,845	298,792	228,114	7
3,032,106	7,599,668	5,000,710	292,606	9,441,088	5,470,502	6,116,286	7,978,394	8
206,585	9,268	—	—	—	—	36	44	9
—	—	2,516,228	—	7,462,649	2,335,575	5,930,451	5,032,755	10
1,960,582	347,824	6,000	—	4,100	—	73,360	636	11
793,463	151,456	5,076	—	1,459	—	17,977	377	12
1,672,597	24,003,534	26,006,730	1,808,471	10,066,914	1,000,675	121,850	3,531	13
118,754	2,669,925	1,833,099	186,268	600,051	93,460	8,448	398	14
5,922	287	3,768	9,111	2,219	1,244	190	2,454	15
918,139	2,821,668	4,358,171	195,379	8,066,378	2,430,279	5,957,066	5,035,984	16
113,313,762	90,323,672	135,689,373	117,329,875	92,258,282	11,674,835	167,600	3,183,970	17
163,349,684	140,576,555	208,995,482	196,533,828	128,792,108	18,069,778	355,078	6,608,490	18
6,040,988	6,671,936	8,630,151	7,432,598	138,896	82,252	932	556	19
42,266,839	53,256,821	72,448,130	61,640,100	666,957	461,917	12,471	4,696	20
145,307	19,506	29,566	2,037	114,040	197,088	175,206	180,137	21
7,322,693	10,883,302	9,889,689	612,309	70,459,004	26,798,712	9,022,797	44,632,294	22
213,084,523	204,736,184	291,362,867	258,788,274	200,032,109	45,527,495	9,565,552	51,424,617	23
243	109	—	—	—	—	1,213	6,781	24
5,775	2,522	—	—	—	—	28,589	105,034	25
2,663,433	84,634	16,924	16,695	1,180	1,588	64,874	18,522	26
—	—	—	—	3,942,454	3,416,156	4,352,143	6,084,142	27
15,380	972	—	775	1,124,044	1,100,972	1,805,657	2,491,836	28
—	—	—	—	1,037,544	876,838	1,525,557	1,486,609	29
2,678,813	85,606	16,924	17,470	2,162,768	1,979,398	3,396,088	3,996,967	30
86,696	264	3,854	2,755	421,563	69,168	84,777	271,086	31
1,290	330	—	—	1,532	68	155	63	32
1	2,391	14,240	—	1	10,397	7,462	16,000	33
63,736	103,728	112,437	14,452	286,306	35,022	32,086	125,925	34
—	—	—	—	—	193,100	252,024	430,775	35
220,077,663	215,361,629	300,869,203	259,310,936	220,411,744	55,715,429	25,440,121	69,384,889	36
—	—	95	—	2,354,797	2,482,883	1,465,559	1,319,508	37
—	—	87	—	2,059,809	2,360,396	1,321,812	1,297,422	38
7,654	22,137	250,764	271,568	3,452,005	4,646,526	2,847,360	3,224,794	39
47,875	131,765	432,739	550,261	18,559,233	27,138,449	18,061,413	23,254,341	40
—	—	—	—	5,309	22	17	3,050	41
—	—	—	—	12,038	118	90	15,653	42
47,875	131,765	432,826	550,261	20,631,080	29,498,963	19,383,315	24,567,416	43
26,095	18,668	13,171	21,977	12,487	32,173	18,586	22,554	44
—	—	—	—	19,400	20,904	—	221,045	45
—	—	—	—	45,504	57,692	—	756,383	46
173,576	182,060	331,762	1,872,207	956,248	1,999,171	2,005,054	1,820,950	47
48	51,817	99,992	29,648	92,440	159,050	84,781	73,066	48
7,666,317	2,352,579	3,226,485	1,500,888	15,411,044	5,370,773	3,723,793	10,211,707	49

1 Not given separately in 1945.



## 14.—Principal Exports of Canadian Produce from Canada to all Countries,

No.	Item	All Countries			
		1945	1946	1947	1948
<b>I. Agricultural and Vegetable Products—concluded</b>					
<b>B. OTHER THAN FOOD—concluded</b>					
1	Seed potatoes..... bu.	3,163,016	3,243,637	4,257,161	5,343,936
	\$	5,464,679	5,259,922	6,471,118	7,439,947
2	Seeds, <i>n.o.p.</i> ..... \$	11,873,201	7,968,508	10,221,775	42,308,031
3	Tobacco, unmanufactured..... lb.	15,567,874	12,590,715	24,493,210	15,877,694
	\$	6,722,709	5,891,604	12,601,469	8,099,400
4	Tobacco, manufactured..... \$	1,361,984	554,567	1,555,725	292,711
5	Other vegetable products, not food..... \$	12,337,471	16,946,304	10,920,564	10,942,582
	TOTALS, B. OTHER THAN FOOD..... \$	101,545,051	99,214,295	107,410,699	147,856,461
	Totals, Agricultural and Vegetable Products..... \$	819,445,087	578,487,716	683,696,775	643,697,863
<b>II. Animals and Animal Products</b>					
Animals Living—					
6	Cattle, swine, sheep and poultry, pure bred for improvement of stock..... No.	55,043	36,004	41,303	54,996
	\$	5,351,923	7,236,876	7,676,802	12,046,251
7	Cattle, <i>n.o.p.</i> ..... No.	55,436	77,082	53,326	411,291
	\$	7,096,027	10,998,211	7,697,734	62,173,640
8	Horses..... No.	19,059	40,120	15,662	21,599
	\$	1,386,949	4,483,827	850,796	1,316,612
9	Other animals, living..... \$	2,010,470	479,235	3,788,439	11,968,407
	Totals, Animals, Living..... \$	15,845,369	23,198,149	20,013,771	87,504,910
10	Bones, horns, etc..... \$	362,745	382,915	377,781	496,374
Fishery Products, <i>n.o.p.</i> —					
11	Fish, fresh or frozen..... cwt.	2,522,821	2,577,046	2,220,499	2,354,779
	\$	44,232,442	41,462,649	38,033,180	45,246,151
12	Fish, salted, dried, pickled and smoked... cwt.	902,616	1,073,011	969,766	1,083,870
	\$	11,791,019	13,807,545	12,309,390	14,864,254
13	Fish, canned or preserved, <i>n.o.p.</i> ..... cwt.	1,313,471	1,521,834	1,551,495	898,620
	\$	23,864,759	30,427,560	31,510,497	21,044,204
14	Other fishery products, <i>n.o.p.</i> ..... \$	337,403	788,344	506,136	3,872,940
	Totals, Fishery Products, <i>n.o.p.</i> ..... \$	80,225,623	86,486,098	82,359,203	85,027,549
15	Furs and manufactures of..... \$	29,572,474	32,291,425	29,047,741	24,117,782
16	Hair and bristles and manufactures of..... \$	989,008	1,251,151	1,661,550	1,488,808
17	Hides and skins, raw (except fur skins)..... cwt.	34,757	113,974	93,879	573,626
	\$	557,877	1,647,016	1,642,920	11,965,611
18	Leather, unmanufactured..... \$	4,004,397	7,655,980	12,918,826	9,241,219
19	Leather, manufactured..... \$	3,748,363	9,282,127	7,400,755	3,777,731
20	Bacon and hams, shoulders and sides..... cwt.	4,498,346	2,892,916	2,357,892	2,047,307
	\$	96,493,111	66,388,591	62,081,160	69,960,452
21	Other meats and preparations of..... \$	70,481,283	62,546,930	40,775,522	63,398,537
Milk and Its Products—					
22	Butter..... cwt.	55,983	45,094	31,071	8,822
	\$	2,235,749	2,003,302	1,597,095	625,212
23	Cheese..... cwt.	1,354,093	1,064,954	555,311	398,274
	\$	27,909,305	21,947,738	14,162,303	12,042,200
24	Milk, processed..... cwt.	1,021,272	765,268	799,917	902,528
	\$	12,092,924	9,624,596	11,669,097	15,190,473
25	Other milk products..... \$	1,018,535	1,347,172	2,271,655	2,515,497
	Totals, Milk and Its Products..... \$	43,256,513	34,922,808	29,700,150	30,373,382
26	Oils, fats, greases and waxes..... \$	5,201,096	2,401,925	1,729,197	4,944,189
27	Other animal products..... \$	47,325,621	30,017,679	41,736,107	42,627,958
	Totals, Animals and Animal Products.. \$	398,063,480	358,472,794	331,444,683	434,924,502

the United Kingdom and the United States, Calendar Years 1945-48—con.

United Kingdom				United States				No.
1945	1946	1947	1948	1945	1946	1947	1948	
—	—	—	—	2,163,477	2,057,984	2,216,497	4,331,707	1
2,466,060	1,015,923	3,169,130	2,159,154	3,353,412	2,941,274	2,650,529	5,601,567	2
12,406,262	9,551,282	22,007,521	12,487,642	7,549,343	3,342,180	4,704,351	18,490,894	3
5,532,507	4,573,692	11,392,374	6,330,102	310	100	—	9,320	4
720,125	2,241	73	70	208	76	—	3,750	5
261,498	562,607	318,758	147,298	56,823	15,116	10,213	8,191	
16,894,101	8,891,352	18,984,571	12,611,605	10,443,057	14,644,361	7,786,763	8,381,078	
236,971,764	224,252,981	319,853,774	271,922,541	278,963,390	113,776,258	65,807,506	139,322,445	
4	359	320	321	27,833	34,441	39,095	50,829	6
4,500	462,630	212,437	216,592	4,724,204	6,337,198	7,004,860	11,155,840	7
—	—	—	—	48,747	70,011	46,233	406,228	8
—	—	—	—	6,376,640	10,259,720	6,959,717	61,563,904	9
—	—	—	—	15,084	14,683	13,334	13,670	
2,420	2,895	4,374	8,747	772,614	699,736	618,320	621,218	
6,920	465,525	216,811	225,339	1,878,609	218,752	3,565,598	11,784,814	
29,849	—	5,799	—	332,138	382,833	355,409	486,404	10
217,372	73,502	14,112	—	2,304,008	2,422,560	2,198,604	2,344,526	11
3,891,893	1,248,559	295,917	—	40,316,678	38,774,536	37,516,559	44,973,446	12
5,881	750	—	—	404,570	449,172	305,982	391,204	13
56,690	33,990	—	—	6,014,032	6,579,063	4,704,705	6,049,542	14
400,850	445,662	251,568	49,794	46,726	58,696	29,423	57,044	
9,190,560	11,753,336	6,191,437	1,810,879	3,239,099	4,407,054	1,539,346	3,082,445	
330	437	4,424	1,014	329,849	775,668	498,710	3,592,309	
13,139,473	13,036,322	6,491,778	1,811,893	49,899,658	50,536,321	44,259,320	57,697,742	
1,363,727	10,842,086	7,378,628	7,965,968	26,755,604	19,679,471	20,342,001	15,615,058	15
590	203,527	378,639	196,022	977,563	982,181	967,504	1,082,761	16
134	38,993	1,417	6,197	16,584	20,184	76,361	521,064	17
15,939	537,929	89,456	179,655	300,023	397,485	1,326,952	10,716,594	18
796,484	1,535,732	4,292,000	1,242,151	1,220,837	2,277,948	3,701,122	3,882,290	19
464,149	334,308	644,451	598,740	637,094	2,721,306	882,395	944,101	20
4,460,693	2,860,291	2,320,014	2,001,380	—	—	81	82	
95,359,210	65,203,703	60,572,735	67,844,842	—	—	2,895	2,497	
43,508,585	29,490,235	14,542,815	9,515,700	3,573,973	222,480	508,949	33,701,542	21
—	—	389	—	—	9	22	59	22
—	—	15,546	—	—	369	1,146	3,661	23
1,328,554	1,042,435	538,610	373,813	1,444	1,282	1,788	1,123	24
27,123,611	21,251,457	13,599,246	11,085,099	51,385	52,610	66,738	47,796	25
25,460	356,426	375,634	8,947	52,449	11	15	51,611	
377,780	3,541,606	4,639,523	111,862	453,065	270	176	678,876	
1,557	27,259	45,053	2,233	126,334	306,354	255,649	869,633	
27,502,948	24,820,322	18,293,368	11,199,194	630,784	359,603	323,709	1,599,966	
825,901	285,164	268,529	18,964	3,245,531	1,614,957	985,850	4,100,734	26
43,888,338	26,637,579	37,687,825	37,819,309	2,385,914	2,261,360	2,325,044	2,985,298	27
226,902,113	173,392,432	150,862,834	138,117,777	103,711,186	98,951,351	94,129,645	217,940,763	

## 14.—Principal Exports of Canadian Produce from Canada to all Countries,

No.	Item	All Countries			
		1945	1946	1947	1948
III. Fibres and Textiles					
1	Cotton and manufactures of..... \$	10,141,068	10,550,725	11,238,457	10,232,951
2	Flax, hemp, jute and manufactures of..... \$	1,682,124	2,449,433	1,153,235	1,882,284
3	Silk and manufactures of..... \$	12	—	15,425	72,696
4	Wool, raw (includes noils and tops)..... lb.	10,174,121	5,209,346	4,072,854	3,669,300
	..... \$	3,743,447	1,872,934	1,529,037	2,075,809
5	Other wool and manufactures of..... \$	15,815,277	15,066,297	7,333,979	10,015,109
6	Artificial silk (rayon) and manufactures of..... \$	8,961,459	8,292,957	11,760,787	7,170,663
7	Other textile products..... \$	16,537,718	15,527,481	16,316,399	14,104,397
	<b>Totals, Fibres and Textiles..... \$</b>	<b>56,881,105</b>	<b>53,759,827</b>	<b>49,347,319</b>	<b>45,553,909</b>
IV. Wood, Wood Products and Paper					
8	Logs..... M ft.	57,680	56,132	54,877	80,970
	..... \$	2,213,181	2,479,568	3,042,996	4,668,611
9	Railroad ties..... No.	1,053,671	1,128,858	2,216,644	2,810,778
	..... \$	1,645,531	1,987,816	5,365,765	7,258,390
10	Planks and boards..... M ft.	1,977,348	2,069,028	2,725,910	2,459,817
	..... \$	98,934,569	125,390,834	208,375,356	196,023,439
11	Timber, square..... M ft.	23,694	14,257	9,117	7,923
	..... \$	1,060,012	801,712	839,894	551,867
12	Shingles..... squares	1,651,061	1,775,216	2,050,889	2,352,953
	..... \$	8,000,968	11,211,318	20,254,442	22,370,319
13	Pulpwood..... cord	1,576,821	1,759,251	1,882,813	2,187,638
	..... \$	23,881,928	28,731,150	34,528,884	43,572,868
14	Spoolwood..... M ft.	33,685	39,370	35,855	16,755
	..... \$	2,948,635	3,498,530	3,667,912	2,037,419
15	Wood-pulp..... cwt.	28,690,537	28,371,158	33,974,242	35,959,964
	..... \$	106,054,911	114,020,659	177,802,612	211,564,384
16	Pulp board, wall board and paper board.... cwt.	2,243,631	2,034,041	2,285,776	1,709,170
	..... \$	8,457,490	8,420,030	10,929,743	13,519,607
17	Book paper..... cwt.	342,480	493,516	745,824	737,636
	..... \$	3,062,502	3,580,946	6,068,943	5,840,550
18	Newsprint paper..... cwt.	61,178,918	77,169,338	84,415,575	86,561,071
	..... \$	179,450,771	265,864,969	342,293,158	383,122,743
19	Wrapping paper..... cwt.	561,912	449,053	425,864	431,852
	..... \$	3,770,572	3,089,396	3,395,346	3,610,298
20	Newsprint paper, mutilated, or beater stock, and waste paper..... cwt.	1,147,121	519,380	654,866	971,921
	..... \$	2,427,568	1,104,592	1,883,665	3,031,226
21	Other wood products and paper..... \$	46,131,904	55,409,635	67,743,317	56,501,806
	<b>Totals, Wood, Wood Products and Paper \$</b>	<b>488,040,542</b>	<b>625,591,155</b>	<b>886,192,034</b>	<b>953,673,527</b>
V. Iron and Its Products					
22	Iron ore..... ton	771,495	1,145,256	1,749,976	1,070,277
	..... \$	2,552,691	4,352,971	6,023,448	5,300,742
23	Ferro-alloys..... ton	137,122	95,301	173,989	167,375
	..... \$	14,925,295	9,484,904	21,545,088	24,056,638
24	Pigs, ingots, blooms and billets..... ton	66,737	80,255	86,505	36,435
	..... \$	4,505,589	3,327,870	4,080,144	2,690,845
25	Scrap iron or steel..... ton	28,459	12,154	3,060	5,214
	..... \$	387,006	165,563	66,857	186,640
26	Castings and forgings..... cwt.	874,547	203,310	178,508	185,263
	..... \$	6,389,324	2,005,417	1,883,906	2,093,639
27	Rolling-mill products..... ton	132,731	105,381	98,334	233,111
	..... \$	10,188,798	7,527,911	10,934,895	23,773,298
28	Tubes, pipes and fittings..... \$	3,095,601	1,082,386	652,157	1,953,290
29	Wire..... \$	2,660,799	724,540	651,697	593,900
30	Chains..... \$	230,337	158,357	260,574	251,914
31	Engines, boilers and parts..... \$	22,654,017	28,764,009	20,197,921	12,204,439
32	Farm implements and machinery..... \$	20,196,085	28,661,562	42,237,917	73,760,071
33	Hardware and cutlery..... \$	4,076,988	4,175,734	5,892,560	5,316,125
34	Machinery (except agricultural)..... \$	19,868,680	15,534,622	41,021,630	40,538,974
35	Stamped and coated products..... \$	271,508	331,488	231,812	592,260
36	Tools..... \$	2,042,323	1,145,396	2,994,349	3,101,658
Vehicles and Parts—					
37	Automobiles, freight..... No.	122,768	44,660	42,215	20,901
	..... \$	206,729,941	43,201,264	37,918,280	18,840,966
38	Automobiles, passenger..... No.	44	23,451	41,550	27,277
	..... \$	65,537	13,992,507	33,579,360	20,905,084
39	Automobile parts..... \$	93,852,013	21,110,039	20,141,614	15,339,688
40	Vehicles, n.o.p..... \$	51,241,826	33,773,155	14,627,545	21,258,790
	<b>Totals, Vehicles and Parts..... \$</b>	<b>351,889,317</b>	<b>112,076,965</b>	<b>106,266,799</b>	<b>76,344,528</b>
41	Other iron and steel products..... \$	89,155,745	7,953,231	8,414,448	8,705,745
	<b>Totals, Iron and Its Products..... \$</b>	<b>553,090,103</b>	<b>727,472,926</b>	<b>773,156,202</b>	<b>281,464,706</b>



the United Kingdom and the United States, Calendar Years 1945-48—con.

United Kingdom				United States				No.
1945	1946	1947	1948	1945	1946	1947	1948	
1,467,112	527,361	472,027	950,721	766,880	486,371	641,179	695,408	1
1,178,550	961,185	299,388	251,976	441,382	1,340,427	667,604	1,512,892	2
—	14,195	1,298,163	1,081,403	—	—	154	1,774	3
—	5,323	418,626	492,611	10,136,510	5,193,568	2,739,879	2,579,425	4
5,942,040	816,430	103,309	22,215	3,718,555	1,867,135	1,097,768	1,447,354	5
4,769,359	10,043	167,056	96,858	1,108,845	1,206,032	2,190,768	5,782,287	6
1,170,392	50,435	99,295	76,764	211,094	210,512	1,865,294	1,619,199	7
14,527,453	2,370,777	1,559,701	1,891,145	3,970,611	5,372,580	3,929,766	5,975,803	8
9,943	11,788	9,653	8,571	47,334	43,077	42,588	68,740	9
749,294	820,850	722,630	723,222	1,423,522	1,508,606	2,077,890	3,611,252	10
794,456	319,419	975,345	1,189,463	187,064	197,949	91,495	64,219	11
1,279,607	581,462	2,487,021	3,297,160	270,805	337,537	164,392	100,318	12
865,836	704,842	1,119,066	562,047	929,111	963,565	1,065,152	1,612,691	13
38,647,395	36,236,624	77,621,099	43,888,185	50,201,375	60,384,220	79,769,360	127,947,843	14
12,827	4,680	2,178	3,606	306	1,108	64	2,532	15
569,669	271,513	170,168	256,950	8,458	68,475	4,801	157,312	16
—	92,465	20,750	—	1,605,800	1,572,858	1,977,295	2,222,158	17
—	741,936	168,110	—	7,692,553	9,624,717	19,594,925	20,886,695	18
—	—	—	10,330	1,576,821	1,759,251	1,859,794	2,131,961	19
14,007	15,338	14,986	8,223	23,881,928	28,731,150	34,053,976	42,237,021	20
1,194,399	1,527,474	1,685,634	958,461	19,678	23,427	20,113	5,966	21
5,817,694	2,399,352	2,739,521	3,411,919	1,754,236	1,908,259	1,866,671	655,797	22
22,276,514	10,122,012	14,741,287	21,369,417	21,872,610	25,052,968	29,986,034	31,813,489	23
903,412	818,128	797,902	719,492	79,589,366	99,972,972	156,121,526	184,972,898	24
3,697,574	3,661,506	4,155,026	4,266,227	958,176	727,250	890,934	1,368,895	25
15,923	1,277	5,939	3,247	2,883,996	2,326,089	3,310,927	5,572,777	26
146,177	22,083	79,871	46,604	3,159	170,638	386,798	501,476	27
2,112,966	1,657,759	1,110,409	1,213,799	23,981	717,197	2,090,835	3,018,274	28
6,564,645	5,954,814	4,623,491	5,319,660	50,671,287	66,464,766	73,506,975	78,347,320	29
216,349	106,843	65,868	109,006	146,507,805	224,782,463	291,892,729	340,334,045	30
1,244,300	643,903	548,590	548,199	17,074	33,752	87,560	63,910	31
104,066	—	—	—	74,102	138,841	544,456	663,272	32
258,072	—	—	—	1,027,716	518,396	654,349	971,268	33
21,857,589	24,455,764	29,115,936	19,688,628	2,128,325	1,101,312	1,882,383	3,029,280	34
98,483,235	85,039,941	136,118,863	100,642,151	12,887,807	16,225,578	18,185,650	21,750,432	35
—	—	—	—	771,495	1,145,256	1,749,976	1,070,277	36
46,636	32,812	58,282	63,912	2,552,691	4,352,971	6,023,448	5,300,742	37
5,494,771	2,808,318	8,147,946	9,970,109	75,190	43,079	103,292	95,635	38
20,906	78,123	83,891	17,683	7,316,692	4,308,074	11,738,882	12,481,345	39
854,953	3,242,125	3,910,072	1,746,773	30,591	968	882	16,070	40
—	76	—	—	1,177,531	27,890	31,244	621,473	41
—	3,451	—	—	28,459	12,078	3,060	5,214	42
—	—	63	344	387,006	162,112	66,857	186,640	43
4,039	3,866	719	3,476	866,274	202,032	175,267	180,881	44
239,776	380,273	682,946	1,748,068	6,264,549	1,988,353	1,835,471	2,010,840	45
284,851	112	6,437	5,898	31,621	6,697	9,014	13,344	46
126,592	6,934	27,369	6,199	955,400	207,008	284,107	1,115,163	47
122,103	4,175	704	12,895	74,629	13,419	21,663	155,985	48
4,479,719	2,584,984	1,042,685	3,836,968	971,355	53,152	47,545	51,230	49
667,509	519,819	752,627	1,049,750	11,254	67,969	41,105	40,551	50
1,854,444	765,763	2,357,263	2,129,584	184,241	305,278	492,681	308,775	51
2,514	—	—	190	8,993,712	14,460,331	23,478,709	50,575,122	52
309,178	107,384	178,674	338,628	499,743	529,829	476,931	991,164	53
20,276	2	—	—	4,533,884	2,281,523	3,402,675	5,781,718	54
53,856,041	46,168	—	—	19,792	90,427	9,650	19,091	55
1	46	427	37	623,550	148,858	147,492	247,423	56
1,900	48,890	497,206	47,867	1	11	1	—	57
21,390,699	258,299	574,552	260,127	1,975	5,384	1,515	—	58
13,120,880	5,748,381	3,958	1,997	1	24	81	16,685	59
88,369,520	6,101,738	1,075,716	309,991	350	23,499	43,479	1,793,789	60
59,700,905	260,970	182,873	116,766	622,427	1,588,080	2,003,566	10,161,112	61
162,456,835	17,091,525	21,720,908	21,909,576	3,728,295	673,289	6,798,480	—	62
—	—	—	—	4,353,047	2,290,252	8,847,040	11,971,582	63
—	—	—	—	9,421,360	668,928	520,877	359,701	64
—	—	—	—	48,340,436	31,956,374	57,466,377	92,218,545	65

## 14.—Principal Exports of Canadian Produce from Canada to all Countries,

No.	Item	All Countries			
		1945	1946	1947	1948
VI. Non-Ferrous Metals					
1	Aluminum and manufactures of..... \$	133,566,994	56,030,039	63,955,574	102,046,428
2	Brass and manufactures of..... \$	4,362,717	3,372,923	3,874,746	4,676,723
3	Copper and manufactures of..... \$	40,859,624	37,004,791	59,298,039	79,035,584
4	Lead and manufactures of..... \$	9,176,739	16,845,519	30,944,830	34,683,751
5	Nickel..... cwt.	2,164,433	2,238,772	2,341,140	2,636,797
	\$	54,778,226	55,204,632	60,442,762	73,801,871
6	Precious metals and manufactures of (except gold)..... \$	17,200,414	21,468,727	22,580,917	25,477,574
7	Zinc and manufactures of..... \$	20,373,174	27,769,171	30,192,642	42,496,481
8	Clocks and watches and parts..... \$	911,763	1,260,559	1,128,915	1,179,021
9	Electrical apparatus, <i>n.o.p.</i> ..... \$	60,956,632	20,939,342	19,135,446	16,822,314
10	Printing materials..... \$	23,872	41,253	114,245	82,133
11	Other non-ferrous metals, including "Alloys, <i>n.o.p.</i> "..... \$	10,335,490	7,873,109	12,269,124	15,646,331
	<b>Totals, Non-Ferrous Metals..... \$</b>	<b>352,545,645</b>	<b>247,810,065</b>	<b>303,937,240</b>	<b>395,948,211</b>
VII. Non-Metallic Minerals					
12	Asbestos and manufactures of..... \$	22,183,890	24,480,620	32,969,263	41,979,215
13	Clay and manufactures of..... \$	627,248	1,051,590	1,182,900	1,508,132
Coal and Its Products—					
14	Coal..... ton	840,708	862,489	714,549	1,273,262
	\$	5,303,543	5,946,224	5,440,788	11,555,985
15	Coke..... ton	60,925	63,772	133,970	199,825
	\$	808,025	782,992	1,377,692	3,068,176
16	Creosote and coal-tar oils, <i>n.o.p.</i> ..... gal.	4,005,006	2,935,091	2,149,985	3,949,336
	\$	640,860	441,915	350,294	902,179
17	Other coal products..... \$	280,336	193,702	111,061	19,650
	<b>Totals, Coal and Its Products..... \$</b>	<b>7,032,764</b>	<b>7,364,833</b>	<b>7,279,835</b>	<b>15,545,990</b>
18	Glass and manufactures of..... \$	546,310	1,157,769	1,953,063	1,206,524
19	Graphite, crude or refined..... cwt.	22,845	29,777	36,288	40,283
	\$	124,295	142,974	156,748	191,398
20	Mica and manufactures of..... \$	304,723	207,068	129,539	150,361
21	Petroleum and products..... \$	11,252,448	4,622,338	6,884,433	9,303,914
22	Stone and its products..... \$	14,509,129	15,878,358	18,531,508	20,020,505
23	Other non-metallic minerals..... \$	2,974,228	2,754,975	5,526,899	5,008,509
	<b>Totals, Non-Metallic Minerals..... \$</b>	<b>59,555,035</b>	<b>57,360,525</b>	<b>74,614,188</b>	<b>94,914,548</b>
VIII. Chemicals and Allied Products					
24	Acids..... cwt.	569,539	338,944	1,011,078	1,233,076
	\$	2,830,480	2,060,181	3,712,611	5,727,794
25	Alcohols, industrial..... \$	5,375,448	108,263	103,674	25,014
26	Cellulose products..... \$	132,851	253,364	514,797	320,223
27	Drugs, medicinal and pharmaceutical preparations..... \$	5,739,853	5,342,618	4,399,614	3,200,398
28	Explosives..... \$	29,247,315	263,934	758,854	379,131
29	Fertilizers..... cwt.	15,075,182	15,609,518	15,821,964	13,842,787
	\$	30,428,347	32,108,440	34,386,165	36,374,435
30	Paints, pigments and varnishes..... \$	3,973,155	4,406,735	7,346,198	6,234,618
31	Perfumery, cosmetics and toilet preparations..... \$	1,745,190	804,540	1,512,358	234,072
32	Soap..... lb.	42,342,874	19,902,821	11,711,348	3,168,542
	\$	3,973,921	2,103,382	1,640,368	780,870
33	Inorganic chemicals, <i>n.o.p.</i> ..... \$	12,684,783	8,569,984	10,407,751	10,048,906
34	Other chemicals and allied products..... \$	15,186,767	11,567,278	19,021,519	16,514,900
	<b>Totals, Chemicals and Allied Products..... \$</b>	<b>111,318,110</b>	<b>67,588,719</b>	<b>83,803,909</b>	<b>79,840,361</b>
IX. Miscellaneous Commodities					
35	Amusement and sporting goods, <i>n.o.p.</i> ..... \$	1,085,918	1,802,393	1,889,429	1,886,124
36	Brushes..... \$	889,650	1,143,015	1,266,785	400,271
37	Containers, <i>n.o.p.</i> ..... \$	1,533,869	2,620,193	5,372,558	3,149,917
38	Household and personal equipment, <i>n.o.p.</i> ..... \$	4,189,250	7,485,032	9,195,250	5,857,195
39	Mineral and aerated waters..... \$	2,277	41,673	1,615	9,308
40	Musical instruments..... \$	140,875	285,955	454,859	428,527
41	Scientific and educational equipment..... \$	9,658,172	3,105,298	5,048,224	4,746,283
42	Ships and vessels and materials for ships..... \$	15,591,457	18,821,962	25,724,244	84,264,575
43	Vehicles (except iron)..... \$	108,171,065	9,885,159	6,537,998	11,673,916
44	Works of art..... \$	36,777	62,939	65,073	42,076
45	Other miscellaneous commodities..... \$	236,091,936	50,417,955	33,153,970	32,962,266
	<b>Totals, Miscellaneous Commodities... \$</b>	<b>377,391,246</b>	<b>95,671,574</b>	<b>88,710,005</b>	<b>145,420,458</b>
	<b>Grand Totals, Exports..... \$</b>	<b>3,218,330,353</b>	<b>2,312,215,301</b>	<b>2,774,902,355</b>	<b>3,075,438,085</b>

## the United Kingdom and the United States, Calendar Years 1945-48—concl.

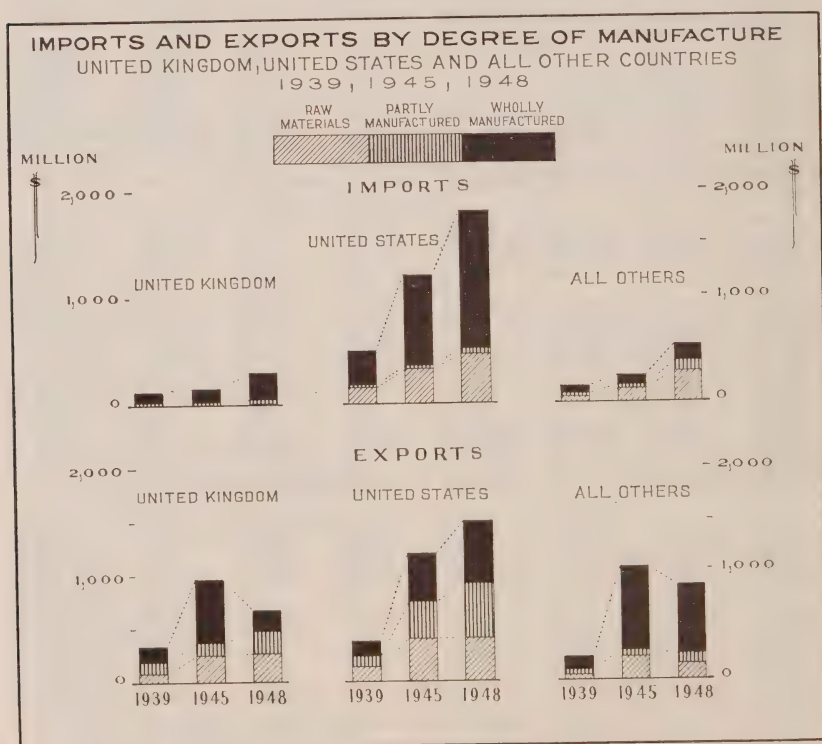
United Kingdom				United States				No.
1945	1946	1947	1948	1945	1946	1947	1948	
11,393,977	23,134,954	25,432,946	39,917,734	108,308,599	10,930,641	5,904,189	25,874,738	1
265,302	251,433	371,263	405,954	2,953,977	1,938,712	1,405,467	1,235,804	2
6,768,305	19,637,602	25,809,525	34,801,746	23,129,159	6,824,056	9,739,376	17,763,112	3
3,953,320	7,673,810	10,612,596	14,535,514	2,911,073	3,886,188	13,416,310	18,157,509	4
333,661	277,750	536,904	511,106	1,729,751	1,644,062	1,481,256	1,928,652	5
6,044,581	5,625,406	12,954,143	12,626,831	45,436,591	41,458,782	38,808,145	56,318,271	
5,398,647	8,850,236	8,630,047	11,276,570	11,609,904	10,802,307	10,963,482	13,795,573	6
4,562,130	4,752,086	10,313,866	12,623,151	13,267,103	17,787,758	14,515,517	25,766,437	7
259,166	161,159	129,785	106,991	211,748	251,649	101,149	59,595	8
35,574,469	9,387,969	478,828	318,338	4,601,224	1,556,705	874,672	583,847	9
778	983	990	2,803	17,167	37,558	105,185	72,957	10
4,215,114	2,518,212	4,203,250	5,250,845	2,264,065	3,084,312	4,435,979	6,918,333	11
78,435,789	81,993,850	98,937,239	131,866,477	214,610,610	98,559,268	100,269,471	166,546,176	
2,145,303	1,925,350	2,297,053	3,261,431	15,392,422	17,820,683	25,407,351	32,093,848	12
—	—	1,552	1,054	156,371	293,322	280,792	339,655	13
—	—	—	—	493,120	459,621	303,772	324,109	14
—	—	—	—	2,642,849	2,520,677	1,626,408	2,228,414	15
3,550	4,020	4,053	1,100	56,920	55,761	126,686	189,989	16
107,817	122,402	132,065	50,322	693,042	559,391	1,150,990	2,882,148	17
—	8,334	—	—	3,964,882	2,885,236	2,121,729	3,489,019	18
—	1,981	—	—	633,456	433,172	343,743	796,324	19
—	—	—	—	7,128	3,283	909	3,129	20
107,817	124,383	132,065	50,322	3,976,475	3,516,523	3,122,050	5,910,015	21
12,434	6,781	7,974	5,391	142,585	56,702	39,061	60,943	22
227	36	—	—	22,159	29,657	36,182	39,581	23
3,200	823	—	—	115,784	140,833	155,435	164,891	24
19,053	19,096	2,265	—	280,921	185,779	105,767	148,629	25
5,073,482	5,521	224,861	929,758	882,760	769,807	691,243	1,236,530	26
1,162,151	2,137,902	2,778,028	2,219,131	12,329,701	12,429,959	13,814,899	15,955,743	27
24,354	261,501	1,344,332	1,216,166	1,557,997	1,044,399	1,495,127	1,532,197	28
8,547,794	4,481,357	6,788,130	7,683,253	34,835,016	36,258,007	45,111,725	57,462,451	29
81,604	119,306	229,808	333,023	435,407	157,896	701,380	3,002,599	30
590,990	907,334	1,898,615	3,002,599	1,761,885	582,332	1,126,312	1,865,819	31
23,088	6,408	33,757	9,992	5,242,262	57,263	30,163	2,480	32
1,797	30	162,236	—	16,347	19,507	20,751	14,542	33
1,895,563	246,095	336,121	102,315	178,315	166,049	117,795	66,924	34
8,084,133	27,089	377,922	—	11,810,394	33,257	15,280	1,101	35
708,180	309,088	205,700	—	8,915,780	9,003,864	8,932,392	8,085,290	36
1,835,109	830,273	649,512	—	17,083,821	17,668,074	18,138,704	20,497,577	37
231,046	302,102	478,491	267,293	1,143,270	643,636	1,065,664	1,912,000	38
26,920	4,227	26,440	3,601	22,775	5,075	7,391	5,640	39
370,729	2,100	97	21,600	3,020	3,634	2,077	8,924	40
48,403	286	36	2,160	412	673	442	1,937	41
1,350,761	808,092	892,259	1,197,822	5,942,903	3,816,443	4,279,936	4,146,583	42
2,348,917	839,526	3,229,290	2,727,856	8,688,954	7,005,969	7,103,386	5,053,775	43
16,436,727	3,971,462	8,084,679	7,313,638	51,891,338	29,998,278	31,905,824	33,568,378	44
9,949	53,511	87,683	85,688	625,607	460,455	202,927	241,584	45
142,014	1,290	1,982	1,612	89,040	29,590	10,815	38,037	46
216,709	31,755	99,932	60,552	99,857	242,239	334,227	395,465	47
64,037	184,037	405,075	250,472	287,524	440,743	320,552	272,466	48
—	—	—	—	12	51	165	178	49
493	2,112	549	2,503	52,030	101,341	124,153	224,030	50
4,515,889	518,002	357,253	366,535	2,974,574	213,563	187,393	725,995	51
798,226	18,927	25,760	25,918	241,918	1,514,181	1,124,745	973,641	52
23,270,728	654,552	411,781	955,641	82,568,929	1,847,344	852,720	4,529,408	53
4,630	10,700	225	—	31,709	48,597	54,799	36,359	54
91,451,302	3,436,964	5,882,227	3,818,798	38,107,924	15,232,563	14,370,116	14,518,767	55
120,473,977	4,911,850	7,272,267	5,567,719	125,079,124	20,130,667	17,582,792	21,955,930	
963,237,687	597,506,175	751,198,395	686,914,277	1,196,976,726	887,940,676	1,034,226,394	1,500,986,721	



## Section 5.—Imports and Exports by Degree of Manufacture, by Origin and by Purpose

Analyses of Canada's trade, from the angle of degree of manufacture of imports and exports with leading countries, are of value to the student of economic relationships because they present, in summary form, details with significant meaning in the complementary relationship of manufacturing and commerce between continents and countries.

The data of Tables 15 and 17 have been specially tabulated to show at a glance this information for all countries of any importance that trade with Canada. Table 16, on the other hand, gives historical statistics that clearly indicate the fluctuations in imports for home consumption of important raw materials used in Canadian manufacture, irrespective of their source. In a broad way, the data reflect the development of Canadian manufactures, although the industrial expansion for the purposes of war must be borne in mind in using the figures for the past decade.



## 15.—Imports and Exports according to Degree of Manufacture, by Countries and Continents, 1948

Country	Imports			Domestic Exports		
	Raw Materials	Partly Manufactured	Fully or Chiefly Manufactured	Raw Materials	Partly Manufactured	Fully or Chiefly Manufactured
	\$	\$	\$	\$	\$	\$
<b>British and Commonwealth Countries</b>						
United Kingdom.....	5,501,080	38,328,789	255,672,331	266,917,745	207,401,966	212,594,566
Ireland.....	28,140	—	56,387	2,054,894	1,355,649	5,846,428
<b>Africa—</b>						
British East.....	7,859,189	—	1,683,664	7,796	209,101	3,255,814
British South <sup>1</sup> .....	1,859,569	124,397	1,851,244	2,849,987	10,494,297	70,515,483
Southern Rhodesia.....	464,612	2,994	16,811	117	1,005,568	1,704,893
<b>British West—</b>						
Gold Coast.....	9,523,167	227,914	150	—	—	2,072,411
Nigeria.....	3,603,154	1,333,717	2,300	—	—	876,222
Bermuda.....	10,161	80,300	48,750	846,395	150,533	3,105,150
<b>British East Indies—</b>						
British India.....	4,070,449	2,964,425	26,365,143	1,766,081	3,823,213	28,108,604
Ceylon.....	1,575,477	—	9,606,247	9,561	150,393	1,549,607
British Malaya.....	15,096,701	6,564,873	216,744	155,285	99,511	9,033,676
British Guiana.....	7,070,960	7,507,260	801,452	485,447	92,547	7,650,643
British Honduras.....	575,394	256,573	1,971	9,121	738	1,141,140
<b>British West Indies—</b>						
Barbados.....	—	2,182,981	4,203,830	653,822	679,661	4,320,238
Jamaica.....	1,673,662	6,299,677	1,583,674	921,783	165,337	11,263,352
Trinidad and Tobago.....	6,209,569	2,499,185	317,754	1,722,350	394,885	14,987,881
Bahamas.....	466,741	—	181,604	535,926	246,402	2,854,111
Leeward and Windward Islands.....	258,639	15,606	33,880	259,712	275,527	5,642,074
Malta.....	—	—	5,093	2,746,313	171,688	332,170
Newfoundland.....	6,142,903	292,993	4,655,220	10,071,217	934,120	44,049,349
<b>Oceania—</b>						
Australia.....	13,760,535	3,505,176	10,148,966	98,021	8,285,776	29,873,011
Fiji.....	2,376	8,235,267	37,588	8,337	348,461	143,110
New Zealand.....	7,962,700	1,845,206	1,795,136	405,080	1,507,633	16,462,339
Palestine.....	—	—	48,858	365,523	415,964	4,254,510
<b>Totals, British and Commonwealth Countries<sup>2</sup>.....</b>	<b>100,106,817</b>	<b>83,622,122</b>	<b>320,384,939</b>	<b>294,751,127</b>	<b>239,557,604</b>	<b>498,082,275</b>
<b>Foreign Countries</b>						
Afghanistan.....	—	—	—	—	—	42,714
Argentina.....	1,962,320	14,866	3,768,617	901,177	1,568,324	14,210,860
Belgium.....	201,451	2,215,419	11,244,471	19,151,356	3,313,201	10,570,731
Belgian Congo.....	79,852	1,509,369	54,592	8,565	26,122	2,206,461
Brazil.....	14,543,689	1,999,494	4,016,208	1,066,112	4,484,501	23,050,169
Chile.....	152,273	24,868	155,239	19,055	524,318	3,951,958
China.....	827,842	1,828,514	1,255,724	62,889	1,728,842	27,336,747
Colombia.....	8,638,144	—	29,660	281,595	1,148,452	6,976,057
Costa Rica.....	3,107,078	2,052	298	3,970	115,549	1,096,768
Cuba.....	1,269,499	19,225,213	2,111,777	1,272,208	1,087,664	8,626,919
Czechoslovakia.....	17,120	68,353	4,723,239	2,295,649	5,939,820	3,159,116
Dominican Republic.....	226,019	17,034,916	9,100	43,516	134,770	2,207,264
Ecuador.....	876,478	308	11,957	17,836	15,881	1,273,898
Egypt.....	1,440,557	—	49,187	3,910,809	559,842	5,734,519
El Salvador.....	1,165,165	—	627	27,072	38,387	1,037,810
France.....	400,656	252,730	11,995,105	7,713,151	13,004,129	72,246,069
French Africa.....	4,224	84,992	22,886	2,425	296,288	2,447,863
St. Pierre and Miquelon.....	2,524	—	8,068	353,229	53,401	1,025,432
Germany.....	478	146,277	1,582,702	483,997	5,043,374	7,686,745
Greece.....	68,258	40,547	35,286	398,352	1,262,911	8,001,370
Greenland.....	—	—	—	37,459	—	50,295
Guatemala.....	8,197,795	6,983	3,950	115	158,653	1,389,697
Haiti.....	170,044	—	5,957	4,810	9,617	1,379,034
Honduras.....	6,181,984	—	473	23,136	2,510	651,580
Iceland.....	9,347	—	66,415	40,119	3,663	1,801,425
Iraq (Mesopotamia).....	—	—	799,045	310	528,755	301,701
Italy.....	1,970,682	581,436	4,428,532	14,554,597	1,935,415	15,888,697
Mexico.....	25,811,637	520,579	925,644	946,043	1,749,632	12,349,500
Morocco.....	136,618	—	209,604	4,256	10,385	1,685,819

<sup>1</sup> Includes Northern Rhodesia, Union of South Africa and other British Africa. countries not specified.<sup>2</sup> Includes other

### 15.—Imports and Exports according to Degree of Manufacture, by Countries and Continents, 1948—concluded

Country or Continent	Imports			Domestic Exports		
	Raw Materials	Partly Manufactured	Fully or Chiefly Manufactured	Raw Materials	Partly Manufactured	Fully or Chiefly Manufactured
	\$	\$	\$	\$	\$	\$
<b>Foreign Countries—concl.</b>						
Netherlands.....	1,558,663	674,288	3,598,475	17,742,009	6,557,816	19,383,928
Indonesia.....	218,443	2,025,441	16,835	2,271	11,919	7,944,446
Netherlands Antilles.....	293,276	79,540	6,913,107	108,152	38,502	2,028,598
Norway.....	3,216	976	1,098,935	18,823,913	113,998	4,491,099
Panama.....	993,408	232,004	1,002	24,016	203,084	3,895,950
Persia (Iran).....	758,066	—	200,553	397	108,201	575,163
Peru.....	1,816,633	14,535	157,739	8,940	304,086	2,215,575
Philippine Islands.....	578,998	5,452,351	410,993	192,647	333,411	9,283,878
Poland.....	—	—	21,809	650,816	2,395,001	2,757,964
Portugal.....	132,424	—	1,044,750	1,969,192	320,421	2,891,379
Portuguese Africa.....	76,617	—	320	221,053	746,252	2,290,991
Spain.....	161,918	816,717	1,607,628	—	215,029	381,089
Sweden.....	84,870	9,662	2,668,026	425,494	3,808,053	2,973,248
Switzerland.....	491	—	7,443,742	8,755,203	3,301,981	7,331,909
Syria.....	25,058	—	3,137	1,360,322	74,034	4,659,300
Turkey.....	223,834	—	839,717	10,584	—	2,001,399
United States.....	453,957,877	53,640,063	1,298,164,845	399,715,240	511,470,985	5,898,000,493
Hawaii.....	45,241	470,860	280,257	924,336	1,024,347	3,915,505
Puerto Rico.....	41,357	106,224	1,435,242	27,795	152,689	2,119,105
Union of Soviet Socialist Republics.....	418	—	3,607	—	—	—
Uruguay.....	495,838	189	218,191	385,655	401,891	3,413,377
Venezuela.....	94,707,913	—	50,366	950,283	747,896	15,236,384
Yugoslavia.....	—	—	5,288	74,500	—	2,175,564
<b>Totals, Foreign Countries<sup>1</sup></b>	<b>636,030,989</b>	<b>110,968,321</b>	<b>1,385,832,164</b>	<b>517,063,201</b>	<b>578,670,247</b>	<b>947,313,631</b>
<b>Grand Totals.....</b>	<b>736,137,806</b>	<b>194,590,443</b>	<b>1,706,217,103</b>	<b>811,814,328</b>	<b>818,227,851</b>	<b>1,445,395,906</b>
<b>Continents</b>						
Europe.....	11,112,551	43,275,839	316,585,813	368,431,710	256,870,493	390,966,641
North America.....	517,034,613	102,490,646	1,321,909,025	418,291,639	518,177,259	716,441,965
South America.....	131,147,273	9,563,975	9,426,264	4,120,900	9,383,853	80,117,127
Asia.....	29,947,227	21,883,661	42,135,613	12,501,270	9,021,557	112,878,149
Oceania.....	21,770,852	14,056,509	12,261,947	1,427,774	11,385,911	50,804,722
Africa.....	25,125,290	3,319,813	3,898,441	7,041,035	13,388,778	94,187,302

<sup>1</sup> Includes other countries not specified.

### 16.—Imports of Certain Raw Materials Used in Canadian Manufactures, 1935-48

NOTE.—Figures for the years ended Mar. 31, 1902-10 are given in the 1926 Year Book, p. 463; those for the years ended Mar. 31, 1911-39 are given in the 1940 edition, p. 533. Calendar-year figures are available only for 1926 and subsequent years; those for 1926-34 are given at pp. 927-928 of the 1948-49 edition.

Year	Sugar for Refining	Vegetable Oil for Soap	Cotton-seed Oil, Crude	Rubber, Raw (including Balata)	Tobacco, Raw	Hides and Skins	Cotton, Raw (including Linters)	Hemp, Dressed or Undressed	Silk, etc., Raw
	ton	gal.	cwt.	cwt.	lb.	cwt.	cwt.	cwt.	lb.
1935....	448,231	4,435,793	202,766	602,286	6,544,106	401,995	1,266,007	17,435	3,274,721
1936....	518,028	7,967,082	190,702	624,629	3,289,994	360,574	1,554,454	44,002	2,145,790
1937....	461,084	11,533,292	190,167	810,348	2,569,177	404,673	1,663,339	14,288	2,445,871
1938....	478,772	10,492,071	140,419	575,987	4,458,578	252,089	1,449,431	17,125	2,507,683
1939....	517,181	10,644,601	103,715	728,504	4,414,955	490,708	1,705,877	10,445	2,304,618
1940....	527,511	11,665,678	177,638	1,177,854	3,857,310	440,215	2,271,449	874	2,392,833
1941....	535,920	10,613,994	224,313	1,493,046	2,006,423	453,238	2,685,221	—	807,371
1942....	304,786	3,420,631	101,244	738,235	1,452,330	356,540	2,802,545	—	106,015
1943....	412,699	3,089,133	187,036	459,085	1,323,847	347,652	1,509,916	—	—
1944....	445,829	1,902,400	306,224	164,536	1,830,157	230,597	1,816,530	—	—
1945....	418,838	3,293,622	244,814	186,609	1,581,290	121,689	2,023,135	—	—
1946....	430,840	2,661,722	82,555	300,523	1,745,604	95,687	1,916,390	448	22,893
1947....	498,118	1,862,044	49,321	774,154	1,589,359	350,083	2,039,139	—	342,850
1948....	613,879	562,644	120,758	957,147	1,617,841	325,669	1,824,746	—	124,504



**16.—Imports of Certain Raw Materials Used in Canadian Manufactures, 1935-48**  
—concluded

Year	Wool, Raw <sup>1</sup>	Noils and Worsted Tops	Artificial Silk Rovings, Yarns, etc.	Manila, Sisal, Istle, Tampico	Rags, Waste Paper, and Other Waste	Iron Ore	Alumina, Bauxite, Cryolite	Tin in Blocks, Ingots, etc.	Petroleum, Crude for Refining
	cwt.	cwt.	lb.	cwt.	cwt.	ton	cwt.	cwt.	'000 gal.
1935....	148,722	127,744	1,214,656	524,572	1,125,868	1,509,933	2,551,217	46,770	1,156,818
1936....	227,816	130,665	1,167,936	627,885	1,120,323	1,317,033	3,489,358	48,468	1,251,504
1937....	244,267	119,677	2,022,144	449,401	1,384,137	2,124,972	6,219,124	58,798	1,361,348
1938....	155,244	105,245	1,756,813	444,613	895,206	1,302,430	7,494,629	52,752	1,228,091
1939....	190,777	123,051	3,128,339	556,842	1,330,024	1,764,844	10,210,575	58,257	1,297,660
1940....	355,618	180,170	3,482,255	877,626	1,845,171	2,418,237	13,963,054	118,378	1,491,072
1941....	486,223	153,664	4,690,108	931,427	1,299,646	3,254,655	23,232,943	174,381	1,637,465
1942....	739,494	126,369	3,541,497	788,081	1,036,298	2,701,968	26,679,928	72,051	1,542,597
1943....	795,033	80,884	3,317,187	740,955	944,393	3,906,425	60,661,690	26,311	1,739,505
1944....	281,475	62,492	10,161,758	810,906	1,098,846	3,126,649	26,613,324	26,823	1,996,445
1945....	304,923	72,849	13,954,822	730,086	1,125,341	3,739,867	18,880,295	71,950	1,987,943
1946....	532,407	118,787	7,874,871	967,970	1,767,857	2,281,677	25,723,852	84,020	2,218,963
1947....	395,439	121,067	21,975,689	937,017	2,042,162	3,944,550	28,002,714	88,723	2,395,283
1948....	425,248	181,038	21,107,587	792,391	2,294,396	4,300,163	40,306,649	80,588	2,643,758

<sup>1</sup> Includes hair of the camel, alpaca, goat, etc.

**17.—Imports and Exports, according to Origin, by Groups and Degree of  
Manufacture, 1948**

Origin	Imports			Domestic Exports		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
Farm Origin	\$	\$	\$	\$	\$	\$
CANADIAN FARM PRODUCTS— <sup>1</sup>						
Field Crops—						
Raw materials.....	168,940	38,825,663	43,907,722	205,312,431	93,473,511	407,747,590
Partly manufactured.....	—	508,328	1,415,709	251,357	1,001,520	3,663,046
Fully or chiefly manufac- tured.....	16,392,165	10,140,956	30,186,623	65,609,138	34,197,459	197,832,690
Totals, Field Crops.....	16,561,105	49,474,947	75,510,054	271,172,926	128,672,490	609,243,326
Animal Husbandry—						
Raw materials.....	2,313,347	12,345,406	41,128,073	32,314,276	133,073,324	177,567,434
Partly manufactured.....	24,609,421	5,734,745	34,766,937	1,279,262	5,920,230	12,053,136
Fully or chiefly manufac- tured.....	61,257,407	9,851,423	92,453,128	95,286,955	8,843,324	144,283,422
Totals, Animal Husbandry.....	88,180,175	27,931,574	168,348,138	128,880,493	147,836,878	333,903,992
All Canadian Farm Pro- ducts—						
Raw materials.....	2,482,287	51,171,069	85,035,795	237,626,707	226,546,835	585,315,024
Partly manufactured.....	24,609,421	6,243,073	36,182,646	1,530,619	6,921,750	15,716,182
Fully or chiefly manufac- tured.....	77,649,572	19,992,379	122,639,751	160,896,093	43,040,783	342,116,112
TOTALS, CANADIAN FARM PRODUCTS.....	104,741,280	77,406,521	243,858,192	400,053,419	276,509,368	943,147,318
FOREIGN FARM PRODUCTS— <sup>1</sup>						
Field Crops—						
Raw materials.....	162,835	68,548,142	185,914,354	—	20,914	37,326
Partly manufactured.....	1,695,142	4,326,982	89,618,739	—	1,715,693	1,763,565
Fully or chiefly manufac- tured.....	40,369,377	77,723,008	186,736,730	2,331,590	9,490,899	43,835,128
Totals, Field Crops.....	42,227,354	150,598,132	462,269,823	2,331,590	11,227,506	45,636,019

For footnote, see end of table, p. 941.

**17.—Imports and Exports, according to Origin, by Groups and Degree of  
Manufacture, 1948—continued**

Origin	Imports			Domestic Exports		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
	\$	\$	\$	\$	\$	\$
<b>Farm Origin—concluded</b>						
FOREIGN FARM PRODUCTS— —concluded <sup>1</sup>						
Animal Husbandry—						
Raw materials.....	156,199	8,386,506	9,098,655	—	—	—
Partly manufactured.....	—	1,885	1,885	—	—	—
Fully or chiefly manufactured.....	723,453	2,307,577	4,008,880	—	1,774	72,696
Totals, Animal Husbandry.....	879,652	10,695,968	13,109,426	—	1,774	72,696
All Foreign Farm Products—						
Raw materials.....	319,034	76,934,648	195,013,009	—	20,914	37,326
Partly manufactured.....	1,695,142	4,328,867	89,620,624	—	1,715,693	1,763,565
Fully or chiefly manufactured.....	41,092,830	80,030,585	190,745,610	2,331,590	9,492,673	43,907,824
TOTALS, FOREIGN FARM PRODUCTS.....	43,107,006	161,294,100	475,379,249	2,331,590	11,229,280	45,708,715
ALL FARM PRODUCTS—						
All Field Crops—						
Raw materials.....	331,775	107,373,805	229,822,070	205,312,431	93,494,425	407,784,916
Partly manufactured.....	1,695,142	4,835,310	91,034,448	251,357	2,717,213	5,426,611
Fully or chiefly manufactured.....	56,761,542	87,863,964	216,923,353	67,940,728	43,688,358	241,667,818
Totals, All Field Crops.....	58,788,459	200,073,079	537,779,877	273,504,516	139,899,996	654,879,345
All Animal Husbandry—						
Raw materials.....	2,469,546	20,731,912	50,226,728	32,314,276	133,073,324	177,567,434
Partly manufactured.....	24,609,421	5,736,630	34,768,822	1,279,262	5,920,230	12,053,136
Fully or chiefly manufactured.....	61,980,860	12,159,000	96,462,014	95,286,955	8,845,098	144,356,118
Totals, All Animal Husbandry.....	89,059,827	38,627,542	181,457,564	128,880,493	147,838,652	333,976,688
ALL FARM PRODUCTS—						
Raw materials.....	2,801,321	128,105,717	280,048,804	237,626,707	226,567,749	585,352,350
Partly manufactured.....	26,304,563	10,571,940	125,803,270	1,530,619	8,637,443	17,479,747
Fully or chiefly manufactured.....	118,742,402	100,022,964	313,385,367	163,227,683	52,533,456	386,023,936
Totals, Farm Origin.....	147,848,286	238,700,621	719,237,441	402,385,009	287,738,648	988,856,033
<b>Wild Life Origin</b>						
Raw materials.....	72,059	9,321,966	9,920,816	7,963,838	14,987,206	23,312,516
Partly manufactured.....	112,693	415,937	675,722	4,210	121,465	227,247
Fully or chiefly manufactured.....	120,340	41,579	165,293	3,940	544,796	628,971
Totals, Wild Life Origin.....	305,092	9,779,482	10,761,831	7,971,988	15,653,467	24,168,734
<b>Marine Origin</b>						
Raw materials.....	3,440	1,135,913	3,192,918	1,014	45,707,356	46,012,516
Partly manufactured.....	—	—	—	—	514,697	514,697
Fully or chiefly manufactured.....	3,014,806	1,720,153	9,254,548	1,828,611	15,586,716	43,235,374
Totals, Marine Origin.....	3,018,246	2,856,066	12,447,466	1,829,625	61,808,769	89,762,587
<b>Forest Origin</b>						
Raw materials.....	—	3,856,071	4,032,071	8,605,536	52,303,696	62,700,055
Partly manufactured.....	30,653	13,572,420	14,444,542	76,404,888	322,404,826	434,004,192
Fully or chiefly manufactured.....	3,007,772	53,049,972	59,263,625	15,655,334	389,251,348	457,161,574
Totals, Forest Origin.....	3,038,425	70,478,463	77,710,238	100,665,808	751,959,870	953,865,821

<sup>1</sup>For footnote, see end of table, p. 941.

**17.—Imports and Exports, according to Origin, by Groups and Degree of Manufacture, 1948—concluded**

Origin	Imports			Domestic Exports		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
<b>Mineral Origin</b>	\$	\$	\$	\$	\$	\$
Raw materials.....	2,624,260	311,520,376	438,888,443	12,720,650	60,149,233	94,436,891
Partly manufactured.....	11,842,005	22,908,173	47,300,013	129,459,493	179,636,374	365,840,395
Fully or chiefly manufactured.....	84,208,771	981,956,391	1,101,705,389	20,845,952	97,037,749	350,149,222
<b>Totals, Mineral Origin.....</b>	<b>98,675,036</b>	<b>1,316,384,940</b>	<b>1,587,893,845</b>	<b>163,026,095</b>	<b>336,823,356</b>	<b>810,426,508</b>
<b>Mixed Origin</b>						
Raw materials.....	—	17,834	54,754	—	—	—
Partly manufactured.....	38,875	6,171,593	6,366,896	2,756	156,183	161,573
Fully or chiefly manufactured.....	46,578,240	161,373,786	222,442,881	11,032,966	43,846,428	208,196,829
<b>Totals, Mixed Origin.....</b>	<b>46,617,115</b>	<b>167,563,213</b>	<b>228,864,531</b>	<b>11,935,752</b>	<b>44,002,611</b>	<b>208,358,402</b>
<b>Recapitulation</b>						
Raw materials.....	5,501,080	453,957,877	736,137,806	266,917,745	399,715,240	811,814,328
Partly manufactured.....	38,328,789	53,640,963	194,590,443	207,401,966	511,470,988	818,227,851
Fully or chiefly manufactured.....	255,672,331	1,298,164,845	1,706,217,103	212,594,566	589,800,493	1,445,395,906
<b>Grand Totals.....</b>	<b>299,502,200</b>	<b>1,805,762,785</b>	<b>2,636,945,352</b>	<b>686,914,277</b>	<b>1,500,986,721</b>	<b>3,075,438,085</b>

<sup>1</sup>In this classification the expression "Canadian Farm Products" refers, in the case of exports, to commodities actually produced, in their original state, on Canadian farms. In the case of imports, it covers all commodities of which the basic raw materials are such as Canadian farms produce. "Foreign Farm Products" covers, in both imports and exports, materials or commodities such as Canada does not produce in their original forms, e.g., cane sugar, tea, rubber, cotton, silk, etc.

**18.—Imports and Exports, by Groups, according to Purpose, 1948**

Group and Purpose	Imports			Domestic Exports		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
<b>Producers Materials</b>	\$	\$	\$	\$	\$	\$
<b>FARM MATERIALS</b>						
Fodders.....	215	17,081,739	17,232,782	2,694	49,266,358	89,418,454
Fertilizers.....	72,947	4,782,620	6,556,706	—	23,986,228	40,124,109
Seeds.....	11,338	1,420,082	1,690,987	2,159,154	21,067,796	26,264,254
Other.....	347,647	5,232,964	5,778,016	490	4,821,223	5,012,170
<b>TOTALS, FARM MATERIALS...</b>	<b>432,147</b>	<b>28,517,405</b>	<b>31,258,491</b>	<b>2,162,338</b>	<b>99,141,605</b>	<b>160,818,987</b>
<b>MANUFACTURERS MATERIALS</b>						
Foodstuffs and beverages... 288,557	10,918,241	13,396,565	196,533,909	6,627,126	243,150,474	
Tobacco, smokers supplies... 2,093	1,296,493	2,924,700	6,330,102	4,972	8,103,453	
Textiles, clothing, cordage... 109,898,955	99,850,148	208,243,848	1,340,766	4,537,685	17,359,695	
Fur and leather goods... 3,491,441	27,302,464	38,391,103	9,393,130	29,687,106	44,738,880	
Sawmills... —	—	—	980,172	3,768,965	5,220,879	
Rubber industries... 360,243	6,573,112	23,443,342	125,656	6,763,165	8,850,514	
Other manufacturers... 28,468,424	384,092,872	574,110,613	197,094,259	827,604,937	1,207,820,636	
<b>TOTALS, MANUFACTURERS MATERIALS...</b>	<b>142,509,713</b>	<b>530,033,330</b>	<b>950,510,171</b>	<b>411,797,994</b>	<b>878,993,956</b>	<b>1,535,244,531</b>
<b>BUILDING AND CONSTRUCTION MATERIALS...</b>	<b>8,364,582</b>	<b>64,803,490</b>	<b>78,781,463</b>	<b>55,624,594</b>	<b>154,169,998</b>	<b>262,530,865</b>
<b>Totals, Producers Materials<sup>1</sup>.....</b>	<b>151,426,170</b>	<b>624,745,386</b>	<b>1,062,063,345</b>	<b>469,705,673</b>	<b>1,133,107,028</b>	<b>1,960,635,239</b>

<sup>1</sup> Totals include other items not stated.



## 18.—Imports and Exports, by Groups, according to Purpose, 1948—concluded

Group and Purpose	Imports			Domestic Exports		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
<b>Producers Equipment</b>	\$	\$	\$	\$	\$	\$
Farm.....	2,554,848	140,559,886	144,640,812	4,092,480	87,912,233	113,100,143
Commerce and industry.....	24,206,047	312,504,814	343,289,858	6,033,489	20,432,995	80,286,731
<b>Totals, Producers Equipment</b>	<b>26,760,895</b>	<b>453,064,700</b>	<b>487,930,670</b>	<b>10,125,969</b>	<b>108,345,228</b>	<b>193,386,874</b>
<b>Fuel, Electricity and Lubricants</b>						
Fuel.....	2,011,291	240,003,561	247,344,233	1,306,606	8,584,638	27,225,583
Electricity.....	—	137,904	137,904	—	4,376,301	4,376,301
Lubricants.....	6,011	6,479,076	6,524,408	3,518	113,098	476,766
<b>Totals, Fuel, etc.</b>	<b>2,017,302</b>	<b>246,620,541</b>	<b>254,006,545</b>	<b>1,310,124</b>	<b>13,074,037</b>	<b>32,078,650</b>
<b>Transport</b>						
Road.....	19,736,143	127,829,140	147,814,706	334,164	5,390,778	77,194,952
Rail.....	3,068	3,316,212	3,319,857	—	32,369	15,385,614
Water.....	208,985	3,988,229	4,198,785	20,905	938,064	82,169,692
Aircraft.....	5,044,908	7,960,112	13,008,292	955,613	4,519,178	11,289,524
<b>Totals, Transport</b>	<b>24,993,104</b>	<b>143,093,693</b>	<b>168,341,640</b>	<b>1,310,682</b>	<b>10,880,389</b>	<b>186,039,782</b>
<b>Auxiliary Materials for Commerce and Industry</b>						
Advertising material.....	323,376	2,824,450	3,180,703	—	—	—
Containers.....	1,695,488	13,533,982	16,789,328	656,805	1,953,894	11,663,795
Other.....	61,157	2,889,454	2,959,103	—	—	—
<b>Totals, Auxiliary Materials</b>	<b>2,080,021</b>	<b>19,247,886</b>	<b>22,929,134</b>	<b>656,805</b>	<b>1,953,894</b>	<b>11,663,795</b>
<b>Consumer Goods</b>						
Foods.....	3,413,686	50,905,857	207,459,453	190,403,984	108,089,242	453,743,122
Beverages.....	9,201,770	5,379,129	61,919,637	550,261	24,921,696	30,840,780
Smokers supplies.....	356,042	901,640	1,579,795	70	6,969	288,658
Clothing.....	14,714,945	6,161,482	22,740,901	2,056,685	6,765,235	23,880,277
Household goods.....	34,757,763	37,484,820	76,755,210	401,414	3,787,228	29,961,618
Jewellery, timepieces, etc.....	1,690,056	3,117,705	11,861,103	124,752	204,593	2,207,654
Books, educational supplies, etc.....	2,667,572	24,462,368	28,383,688	720,487	2,125,422	7,928,680
Recreation equipment, etc.....	2,942,551	9,067,859	13,697,873	397,718	3,895,229	9,065,069
Medical supplies, etc.....	1,811,294	22,720,454	26,610,914	649,847	3,448,575	8,241,142
Other.....	887,159	2,397,626	3,646,484	1,989	137,650	832,322
<b>Totals, Consumer Goods</b>	<b>72,442,838</b>	<b>162,598,940</b>	<b>454,655,058</b>	<b>195,307,207</b>	<b>153,381,839</b>	<b>566,989,322</b>
<b>Totals, Munitions and War Stores</b>	<b>1,313,779</b>	<b>3,661,881</b>	<b>5,036,324</b>	—	<b>15,439</b>	<b>4,542,417</b>
<b>Totals, Live Animals for Food</b>	—	<b>1,478</b>	<b>1,478</b>	—	<b>58,720,323</b>	<b>60,024,297</b>
<b>Totals, Unclassified</b>	<b>18,468,091</b>	<b>152,728,280</b>	<b>181,981,158</b>	<b>8,497,817</b>	<b>21,508,544</b>	<b>60,077,709</b>
<b>Grand Totals</b>	<b>299,502,200</b>	<b>1,805,762,785</b>	<b>2,636,945,352</b>	<b>686,914,277</b>	<b>1,500,986,721</b>	<b>3,075,438,085</b>

## Section 6.—Comparison of Value, Price and Volume of Foreign Trade\*

Since value figures alone are somewhat misleading when used to show the physical growth of foreign trade, the fluctuations in the volume of the country's trade as distinguished from the value thereof should be taken into account. Changes in the value of imports and of exports over a period may be caused by variations in quantities, by fluctuations in prices or by a combination of both these factors. It is desirable, therefore, to isolate each of the two factors of price and quantity in order

\* A detailed analysis of the new value-volume comparison indexes is given in Part I of the "Review of Foreign Trade" published by the Dominion Bureau of Statistics in 1949.

to observe the relative effects of their movement apart from the combined effect displayed by trade values. New interim indexes of prices of imports for consumption and of exports of domestic produce have been constructed at the Dominion Bureau of Statistics to serve this purpose. Such an index of prices when divided into an index of trade values can be said to 'deflate' the trade totals according to that proportion of the value level caused by price-level change. The resulting index is an index of the physical volume of trade which is a measure of the quantum of the current-year trade in terms of the base-year prices.

The Dominion Bureau of Statistics has published value-volume comparisons since 1914. These were first based on 1914 and data were worked back to that year, but after 1929 comparisons with the pre-war year were discontinued and the year 1926 was accepted as being more representative of existing conditions. After the depression of the early 1930's the base year 1936 was decided upon for similar reasons and comparisons were worked back to 1932 and are published at pp. 583-585 of the 1938 edition and in later Year Books. Comparisons on the 1936 base were continued down to 1939. A few years later the 1936 base, in its turn, proved to be not sufficiently representative and a broader base (1935-39=100) was established. Indexes on this base are given in the 1946 Year Book and were compiled back to 1935. It was then felt that the value-volume calculations were due for some refinement in statistical method. In the intervening years, the problems of pricing and commodity classification had been taken in hand and a system devised by which values, value indexes and the resultant volume indexes could be grouped on a comparable basis—a very important consideration affecting the integrity of the indexes. For this reason the publication of value-volume comparisons ceased after 1945 when the refinements referred to were being applied. They are revived on the latest base, 1938, in Table 19.

**19.—Declared Values, Prices and Physical Volume of Foreign Trade,  
by Commodity Groups, 1946-48 compared with 1938**

Commodity Groups <sup>1</sup>	1938	1946	1947	1948
	DECLARED VALUES			
	\$'000	\$'000	\$'000	\$'000
<b>Imports for Consumption—</b>				
Agricultural and other primary products.....	138,395	354,911	414,457	403,014
Fibres and textiles.....	87,443	264,121	390,589	350,619
Wood products and paper.....	32,143	69,623	89,548	73,730
Iron and steel and their products.....	162,750	487,674	758,132	783,401
Non-ferrous metals and their products.....	38,529	124,369	167,840	156,419
Non-metallic minerals and their products.....	121,265	330,446	449,340	603,271
Chemicals and fertilizer.....	35,662	95,039	115,943	121,291
Miscellaneous.....	58,795	196,104	185,071	142,817
Totals, Adjusted Imports <sup>2</sup> .....	674,982	1,922,287	2,570,920	2,634,562
United Kingdom Government and temporary imports.....	2,469	4,992	3,024	2,383
<b>Totals, Declared Values of Imports.....</b>	<b>677,451</b>	<b>1,927,279</b>	<b>2,573,944</b>	<b>2,636,945</b>
<b>Exports of Domestic Produce—</b>				
Agricultural and other primary products.....	293,903	914,484	982,017	1,045,472
Fibres and textiles.....	13,055	53,760	49,347	45,554
Wood products and paper.....	211,613	625,591	886,192	953,674
Iron and steel and their products.....	60,357	245,329	297,121	362,913
Non-ferrous metals and their products.....	179,664	247,810	303,937	395,948
Non-metallic minerals and their products.....	25,013	74,614	74,614	94,915
Chemicals and fertilizer.....	19,496	67,589	83,804	79,840
Miscellaneous.....	34,258	100,293	97,870	97,123
Totals, Adjusted Exports <sup>3</sup> .....	837,359	2,312,215	2,774,902	3,075,439
Temporary exports.....	225	—	—	—
<b>Totals, Declared Values of Exports.....</b>	<b>837,584</b>	<b>2,312,215</b>	<b>2,774,902</b>	<b>3,075,439</b>

<sup>1</sup>For footnotes, see end of table, p. 945.

**19.—Declared Values, Prices and Physical Volume of Foreign Trade,  
by Commodity Groups, 1946-48 compared with 1938—continued**

Commodity Groups <sup>1</sup>	1946	1947	1948	P.C. Change 1947 Over 1946	P.C. Change 1948 Over 1947
<b>VALUE INDEXES</b> (1938=100)					
<b>Imports for Consumption—</b>					
Agricultural and other primary products.....	256.4	299.5	291.2	+16.8	— 2.8
Fibres and textiles.....	302.0	446.7	401.0	+47.9	—10.2
Wood products and paper.....	216.6	278.6	229.4	+28.6	—17.7
Iron and steel and their products.....	299.6	465.8	481.4	+55.5	+ 3.3
Non-ferrous metals and their products.....	322.8	435.6	406.0	+34.9	— 6.8
Non-metallic minerals and their products.....	272.5	370.5	497.5	+36.0	+34.3
Chemicals and fertilizer.....	266.5	325.1	340.1	+22.0	+ 4.6
Miscellaneous.....	333.5	314.8	242.9	— 5.6	—22.8
<b>Totals, Imports<sup>2</sup>.....</b>	<b>284.8</b>	<b>380.9</b>	<b>390.3</b>	<b>+33.7</b>	<b>+ 2.5</b>
<b>Exports of Domestic Produce—</b>					
Agricultural and other primary products.....	311.2	334.1	355.7	+ 7.4	+ 6.5
Fibres and textiles.....	411.8	378.0	348.9	— 8.2	— 7.7
Wood products and paper.....	295.6	418.8	450.7	+41.7	+ 7.6
Iron and steel and their products.....	406.5	492.3	601.3	+21.1	+22.1
Non-ferrous metals and their products.....	137.9	169.2	220.4	+22.7	+30.3
Non-metallic minerals and their products.....	229.3	298.3	379.5	+30.1	+27.2
Chemicals and fertilizer.....	346.7	429.9	409.5	+24.0	— 4.8
Miscellaneous.....	292.8	285.7	283.5	— 2.4	— 0.8
<b>Totals, Exports<sup>3</sup>.....</b>	<b>276.1</b>	<b>331.3</b>	<b>367.2</b>	<b>+20.0</b>	<b>+10.8</b>
<b>PRICE INDEXES</b> (1938=100)					
<b>Imports for Consumption—</b>					
Agricultural and other primary products.....	229.2	250.2	267.1	+ 9.2	+ 6.8
Fibres and textiles.....	206.9	259.8	299.4	+25.6	+15.2
Wood products and paper.....	147.6	160.7	174.8	+ 8.9	+ 8.8
Iron and steel and their products.....	125.7	145.3	165.4	+15.6	+13.8
Non-ferrous metals and their products.....	141.3	184.1	207.3	+30.3	+12.6
Non-metallic minerals and their products.....	145.0	170.3	214.0	+17.4	+25.7
Chemicals and fertilizer.....	131.6	154.9	162.2	+17.7	+ 4.7
Miscellaneous.....	160.1	164.5	173.3	+ 2.7	+ 5.3
<b>Totals, Imports<sup>2</sup>.....</b>	<b>165.6</b>	<b>190.9</b>	<b>215.6</b>	<b>+15.3</b>	<b>+12.9</b>
<b>Exports of Domestic Produce—</b>					
Agricultural and other primary products.....	192.4	202.6	219.3	+ 5.3	+ 8.2
Fibres and textiles.....	158.3	202.5	235.9	+27.9	+16.5
Wood products and paper.....	183.8	226.8	242.7	+23.4	+ 7.0
Iron and steel and their products.....	154.2	169.3	192.0	+ 9.8	+13.4
Non-ferrous metals and their products.....	130.9	161.3	189.5	+23.2	+17.5
Non-metallic minerals and their products.....	117.3	136.7	154.6	+16.5	+13.1
Chemicals and fertilizer.....	109.2	115.1	128.9	+ 5.4	+12.0
Miscellaneous.....	136.8	142.4	156.7	+ 4.1	+10.0
<b>Totals, Exports<sup>3</sup>.....</b>	<b>169.8</b>	<b>193.3</b>	<b>212.4</b>	<b>+13.8</b>	<b>+ 9.9</b>
<b>VOLUME INDEXES</b> (1938=100)					
<b>Imports for Consumption—</b>					
Agricultural and other primary products.....	111.9	119.7	109.0	+ 7.0	— 8.9
Fibres and textiles.....	146.0	171.9	133.9	+17.7	—22.1
Wood products and paper.....	146.7	173.4	131.2	+18.2	—24.3
Iron and steel and their products.....	238.3	320.6	291.1	+34.5	— 9.2
Non-ferrous metals and their products.....	228.5	236.6	195.9	+ 3.5	—17.2
Non-metallic minerals and their products.....	187.9	217.6	232.5	+15.8	+ 6.8
Chemicals and fertilizer.....	202.5	209.9	209.7	+ 3.7	— 0.1
Miscellaneous.....	208.3	191.4	140.2	— 8.1	—26.8
<b>Totals, Imports<sup>2</sup>.....</b>	<b>172.0</b>	<b>199.5</b>	<b>181.0</b>	<b>+16.0</b>	<b>— 9.3</b>

For footnotes, see end of table, p. 945.



**19.—Declared Values, Prices and Physical Volume of Foreign Trade  
by Commodity Groups, 1946-48 compared with 1938—concluded**

Commodity Groups <sup>1</sup>	1946	1947	1948	P.C. Change 1947 Over 1946	P.C. Change 1948 Over 1947
VOLUME INDEXES—concluded (1938=100)					
<b>Exports of Domestic Produce—</b>					
Agricultural and other primary products.....	161.7	164.9	162.2	+ 2.0	— 1.6
Fibres and textiles.....	260.1	186.7	147.9	—28.2	—20.8
Wood products and paper.....	160.8	184.7	185.7	+14.9	+ 0.5
Iron and steel and their products.....	263.6	290.8	313.2	+10.3	+ 7.7
Non-ferrous metals and their products.....	105.3	104.9	116.3	— 0.4	+10.9
Non-metallic minerals and their products.....	195.5	218.2	245.5	+11.6	+12.5
Chemicals and fertilizer.....	317.5	373.5	317.7	+17.6	—14.9
Miscellaneous.....	214.0	200.6	180.9	— 6.3	— 9.8
<b>Totals, Exports<sup>3</sup>.....</b>	<b>162.2</b>	<b>171.4</b>	<b>172.9</b>	<b>+ 5.4</b>	<b>+ 0.9</b>

<sup>1</sup> Groups, though classified by component material, differ slightly from conventional groups (see text, p. 943). <sup>2</sup> Excludes: imports for the use of the United Kingdom Government; temporary imports for exhibition or competition; and monetary and non-monetary gold. <sup>3</sup> Excludes: exports of foreign produce; temporary exports for exhibition or competition; and monetary and non-monetary gold.

The relative significance of changes in price and volume of exports and imports in 1948 as compared with 1947 is shown by the following statement:—

Item	1947	1948	Increase of Value	P.C. Increase of Price	P.C. Change of Volume
	\$'000,000	\$'000,000	\$'000,000		
Domestic exports <sup>1</sup> .....	2,774.9	3,075.4	300.5	9.9	+ 0.9
Imports for consumption <sup>1</sup>	2,570.9	2,634.6	63.7	12.9	— 9.3

<sup>1</sup> Totals adjusted according to the price indexes (see footnotes 2 and 3, Table 19).

The relative levels of these import and export price indexes are significant to the extent that they indicate a change in the net 'barter terms' ratio to have occurred in 1948. Prices of exports have increased, on the average, at a rate which is less than the rate of increase of import prices. Assuming that 100 units of exports of domestic produce would have purchased 100 units of imports for consumption in 1938, this 100 units of exports would have obtained 102.5 units of imports in 1946, 101.3 units of imports in 1947, but only 97.5 units of imports in 1948. The barter terms, however, may be said to have become unfavourable in 1948 in a sense limited by the fact that re-export prices are not taken into account.

## PART II.—EXTERNAL TRANSACTIONS\*

### Section 1.—Canadian Balance of International Payments

Canada's balance of payments in recent years has been subject to wide fluctuations which were particularly marked during 1947 and 1948. The current account surplus of exports of goods and services to all countries rose rapidly to \$453,000,000 in 1948 from the low level of \$47,000,000 reached in the year 1947. Most of the increase in exports of goods and services in 1948 resulted from higher

\* Prepared in the International Payments Section, International Trade Division, Dominion Bureau of Statistics.

prices as the volume was only slightly greater than in the preceding year. On the other hand, the volume of imports of goods and services was reduced appreciably, chiefly because of the effects of the Emergency Exchange Conservation program introduced in November, 1947.

During 1948 there was a great alteration in the direction of Canada's international trade. The current account deficit with the United States declined sharply from \$1,135,000,000 in 1947 to \$401,000,000 in 1948. This arose mainly from the unprecedented rise in the value of Canadian exports of goods and services to the United States which coincided with a reduction in the value of imports due to reductions in the volume of commodity imports from the United States and in other current expenditures. In 1948 almost 50 p.c. of Canadian commodity exports were to the United States compared with 39 p.c. in 1947 and a smaller ratio before the War.

This reduction in the disequilibrium with the United States was accompanied by appreciable declines in the export surplus with the United Kingdom, the rest of the Sterling Area, and with other overseas countries. The current surplus with all overseas countries dropped from \$1,220,000,000 in 1947 to \$873,000,000 in 1948.

At the same time the amount of Canadian exports financed by the Canadian Government through post-war loans and export credits was much less in 1948 than in the two preceding years, declining to \$126,000,000 from \$563,000,000 in 1947 and \$750,000,000 in 1946. There was consequently a large amount of convertible exchange received from trade with overseas countries in 1948 even though the current account surplus with this group of countries declined.

Other capital movements in 1948 contributed to accretions in the official reserves in contrast to the preceding year when they led to the use of reserves. Chief among these capital movements was the sale of \$150,000,000 of bonds by the Federal Government to a group of insurance companies at New York for the purpose of repaying amounts drawn earlier in the year from the credit extended by the Export-Import Bank of Washington. Similarly redemptions of Canadian securities owned in the United States were much smaller in 1948 than in 1947 when there had also been the gold contribution of \$74,000,000 by Canada to the International Monetary Fund.

These fluctuations in net exports of goods and services and in capital movements have had direct effects upon the size of the official liquid reserves of United States dollars and gold which declined in 1947 by \$743,000,000 and recovered again in 1948 by \$496,000,000. As a result, these reserves amounted to \$997,800,000 by the end of 1948. But by the middle of June, 1949, the reserves were slightly lower at about \$977,000,000, indicating that the rapid improvement in Canada's exchange position which occurred in 1948 did not continue in 1949. In the first half of 1949 Canada's balance of commodity exports was only \$29,000,000 compared with \$149,000,000 in the same period of 1948.

**Transactions with the Sterling Area.**—A sharp reduction occurred in the current account surplus from Canadian exports of goods and services to the United Kingdom and the rest of the Sterling Area. Reduced to \$617,000,000 in 1948 from \$874,000,000 in 1947, this surplus was the lowest of any post-war year but was still much higher than before the War: the corresponding figure in 1938 was \$171,000,000. The current account surplus with the United Kingdom alone declined from \$633,000,000 in 1947 to \$488,000,000 in 1948 due to reductions in exports and

increases in imports. The decline in exports to the United Kingdom resulted from reduced British buying in Canada of commodities like bacon and lumber, and the termination of other British purchases such as apples and beef. In contrast a major increase occurred in Canadian imports from the United Kingdom which rose from \$182,000,000 in 1947 to \$287,000,000 in 1948. This increase was the result of improving supplies in Britain, higher prices, and special opportunities for the expansion of British exports to Canada arising from quotas on certain imports, such as textiles and automobiles, introduced by the Canadian Government in November, 1947, as part of the remedial measures taken at that time. These were followed early in 1948 by the temporary suspension of Canadian customs duties on certain textiles. Although a substantial increase occurred in imports of cotton textiles particularly, the volume of these imports in 1948 was still less than the pre-war level and less than the export targets in the United Kingdom.

The current surplus with the remaining countries of the Sterling Area fell from \$241,000,000 in 1947 to \$129,000,000 in 1948. This group of countries sharply reduced purchases in Canada following the deterioration in the dollar position of the Sterling Area in 1947. There was a reintroduction or extension of import controls in these countries, resulting in widespread declines in exports of manufactured goods from Canada. The value of all Canadian exports to this group of countries declined to \$293,000,000 from the peak of \$366,000,000 in 1947.

In addition to these surpluses from commodity trade, other factors such as freight and shipping transactions contributed to the credit balance with the Sterling Area. Besides the earnings of Canadian transportation companies on inland freight there were substantial earnings of Canadian shipping companies from carrying exports to the United Kingdom and other Commonwealth countries. In addition, the expenditures of British ships in Canadian ports were larger than freight earned by British ships carrying goods to Canada. Miscellaneous current transactions, including unilateral items like transfers of immigrants' funds and inheritances, also contributed to the credit balance with the Sterling Area. Offsetting some of these 'invisible' receipts were net payments of interest and dividends by Canadians on British investments in Canada. But these payments have been reduced significantly since before the War by redemptions of Canadian bonds formerly held in the United Kingdom and by other repatriations of securities. While Canadian travel expenditures in the United Kingdom have been increasing in recent years the balance of payments by Canada is still relatively small.

The principal special means of financing the British deficiency in Canada has been the Canadian loan of \$1,250,000,000 to the United Kingdom. Drawings on this loan to the end of 1948 totalled \$1,015,000,000. These drawings in 1947 had been reduced as Canada's U.S. dollar position placed limitations on the rate at which the loan might be drawn. Drawings in 1948 were further reduced, being limited to \$52,000,000 drawn in the early months of the year. Early in 1949 it was announced by the Government that drawings on the remainder of this loan at a rate of \$10,000,000 a month had been arranged for, beginning in January of that year.

The other major means of financing the deficiency has been through the receipt of gold and convertible exchange from the United Kingdom. In the three years 1946-48, \$1,252,000,000 was received in convertible exchange, \$597,000,000 of this amount being in 1948. Other capital movements between Canada and the United Kingdom were smaller in 1948 than in earlier years. Repatriations, amounting to



\$18,000,000, of Canadian securities were smaller as were repayments by the United Kingdom of \$64,000,000 on the 1942 loan. At the end of 1948 the amount of this loan outstanding was \$304,000,000.

**Current Deficit with the United States.**—A sharp reduction in the deficit on commodity account was responsible for most of the impressive reduction of \$734,000,000 in Canada's current deficit with the United States. Net payments for merchandise were reduced by \$601,000,000 during the year. The rapid expansion in Canadian exports to the United States accounted for 75 p.c. of this change in contrast to 1947 when the more dynamic change occurred in the rise in imports. Exports to the United States in 1948 were about 44 p.c. greater than in 1947. The remainder of the improvement in the balance in 1948 came in the decline in the value of imports.

The increase in the value of exports occurred in a great many commodities including the principal export staples. Some of these increases were due to diversions of exports, such as lumber and meat, from overseas markets when overseas demand was reduced and when export controls were removed. These had formerly limited or cut out shipments of many commodities to the United States because of the need to supply overseas countries or because of internal shortages. Improving supplies of other commodities also contributed to the higher exports to the United States when restrictions on exports were withdrawn. At the same time the market in that country for some commodities increased appreciably due to shortages of supplies and rising demands there, as in the case of the exceptionally high exports of Canadian non-ferrous metals. Reductions in the United States tariffs, resulting from the Geneva meetings of the Conference on Trade and Employment, also made for more favourable entry into the United States for many Canadian commodities. While price increases in 1948 contributed an important part to the rise in the value of Canadian exports, most of the impressive increase can be attributed to the increased volume arising from diversions of commodities, abnormal demands, and more favourable tariffs.

Canadian demands for United States commodities continued at exceptionally high levels due to the continuation of Canadian prosperity and investment activity. The volume of many types of imports from the United States, however, was reduced by the effects of the prohibitions and quotas imposed by the Emergency Exchange Conservation program introduced in November, 1947. While the volume of some imports, such as textiles and other consumer goods, was reduced by these restrictions, the value and volume of imports of some other groups of commodities rose as a result of higher volume as well as the higher prices generally prevailing for most imports from the United States in 1948.

The deficit from other current transactions with the United States in 1948 was \$133,000,000 less than in the preceding year. The most important change in the deficit in other current transactions was the reduction in travel expenditures by Canadians in the United States due to the restrictions upon pleasure travel involving expenditures of United States currency and the prohibitions on purchases by travellers introduced in November, 1947. Total Canadian expenditures in the United States on travel declined \$40,000,000 in 1948 to \$113,000,000. At the same time United States travel expenditures in Canada continued to increase with the result that the balance of receipts on travel account rose materially. Another appreciable gain in receipts from the United States was non-monetary gold, the production of which increased. A favourable trend also developed in freight and shipping payments, due mainly to the reduced commodity deficit with the United States. A minor decline

occurred in net payments on income account from reduced payments of interest. Higher payments of dividends by publicly owned companies largely offset reduced payments by subsidiaries and controlled companies to United States parent companies.

**Transactions with Other Foreign Countries.**—There continued to be a substantial surplus from exports of goods and services to other foreign countries although it was reduced from the level of the preceding year. The surplus with "ERP" countries, other than those belonging to the Sterling Area, amounted to \$242,000,000 in 1948 compared with \$281,000,000 in 1947. A considerable part of this surplus in 1948 was financed by official contributions by the Federal Government which amounted to \$13,000,000 and by net post-war loans by the Federal Government of \$51,000,000. The current surplus with all other foreign countries declined from \$65,000,000 in 1947 to \$14,000,000 in 1948. Official contributions in 1948 to this group of countries amounted to \$6,000,000 and post-war loans by the Canadian Government to \$23,000,000. As these loans and contributions were less than in 1947 net receipts of convertible exchange from all foreign countries overseas, amounting to \$173,000,000, were higher than in 1947.

**Capital Movements with the United States Dollar Area and Changes in Reserves.**—As receipts of convertible exchange from all overseas countries exceeded the current deficit with the United States in 1948, there was then a surplus of United States dollars from current transactions of \$369,000,000 in contrast to a deficit of \$497,000,000 in 1947. Capital movements with the Dollar Area were predominantly inward in 1948 adding further to the increase in official reserves of \$496,000,000. These inward movements were the opposite to those of the previous year when outward movements of capital for redemptions and Canada's gold subscription to the International Monetary Fund led to the use of reserves. The principal single factor leading to the net inflows of capital in 1948 was the sale in the United States of a Federal Government issue of bonds of \$150,000,000. There were also larger inflows of capital for direct investment in Canada in 1948.

### 1.—Current Account between Canada and All Countries, 1927-48

(Net Credits + : Net Debits -)

(Millions of Canadian Dollars)

Year	Current Receipts	Current Expenditures	Mutual Aid and Other Official Contributions in Current Account	Net Balance on Current Account	Year	Current Receipts	Current Expenditures	Mutual Aid and Other Official Contributions in Current Account	Net Balance on Current Account
1927.....	1,633	1,643	—	-10	1938....	1,361	1,261	—	+100
1928.....	1,788	1,820	—	-32	1939....	1,457	1,331	—	+126
1929.....	1,646	1,957	—	-311	1940....	1,776	1,627	—	+149
1930.....	1,297	1,634	—	-337	1941....	2,458	1,967	—	+491
1931.....	972	1,146	—	-174	1942....	3,376	2,275	1,002	+99
1932.....	808	904	—	-96	1943....	4,064	2,858	518	+688
1933.....	829	831	—	-2	1944....	4,557	3,539	960	+58
1934.....	1,020	952	—	+68	1945....	4,456	2,910	858	+688
1935.....	1,145	1,020	—	+125	1946....	3,365	2,905	97	+363
1936.....	1,430	1,186	—	+244	1947....	3,746	3,661	38	+47
1937.....	1,593	1,413	—	+180	1948 <sup>a</sup> ...	4,139	3,667	19	+453

## 2.—Geographical Distribution of the Balance on Current Account between Canada and Other Countries, 1927-48

(Net Credits + : Net Debits - )

(Millions of Canadian Dollars)

Year	United Kingdom <sup>1</sup>	Other Overseas Countries <sup>2</sup>	United States <sup>3</sup>	All Countries	Year	United Kingdom <sup>1</sup>	Other Overseas Countries <sup>2</sup>	United States <sup>3</sup>	All Countries
1927.....	-19	+257	-248	-10	1938....	+127	+122	-149	+100
1928.....	-21	+338	-349	-32	1939....	+137	+105	-116	+126
1929.....	-99	+225	-437	-311	1940....	+343	+98	-292	+149
1930.....	-106	+113	-344	-337	1941....	+734	+75	-318	+491
1931.....	-54	+85	-205	-174	1942....	+1,223	+58	-180	+1,101
1932.....	-14	+86	-168	-96	1943....	+1,149	+76	-19	+1,206
1933.....	+26	+85	-113	-2	1944....	+746	+241	+31	+1,018
1934.....	+46	+102	-80	+68	1945....	+747	+763	+36	+1,546
1935.....	+62	+92	-29	+125	1946....	+500	+567	-607	+460
1936.....	+122	+123	-1	+244	1947....	+633	+587	-1,135	+85
1937.....	+135	+122	-77	+180	1948 <sup>p</sup> ...	+488	+385	-401	+472

<sup>1</sup> Excluding wheat exports diverted to other overseas countries, and exports of gold.<sup>2</sup> Including estimated wheat sold in European countries.<sup>3</sup> Including all net exports of non-monetary gold.

## 3.—Balance of International Payments between Canada and All Countries, 1941-48

(Millions of Canadian Dollars)

Item	1941	1942	1943	1944	1945	1946	1947	1948 <sup>p</sup>
<b>A. CURRENT CREDITS—</b>								
Merchandise exports (adjusted)	1,732	2,515	3,050	3,590	3,474	2,393	2,723	3,030
Net exports of non-monetary gold.....	204	184	142	110	96	96	99	119
Tourist and travel expenditures	111	81	88	119	165	221	251	282
Interest and dividends.....	60	67	59	71	80	70	62	70
Freight and shipping.....	185	221	288	322	340	311	322	337
All other current credits.....	166	308	437	345	301	274	289	301
<b>TOTALS, CURRENT CREDITS....</b>	<b>2,458</b>	<b>3,376</b>	<b>4,064</b>	<b>4,557</b>	<b>4,456</b>	<b>3,365</b>	<b>3,746</b>	<b>4,139</b>
<b>B. CURRENT DEBITS—</b>								
Merchandise imports (adjusted)	1,264	1,406	1,579	1,398	1,442	1,822	2,535	2,598
Tourist and travel expenditures	21	26	36	58	85	135	167	132
Interest and dividends.....	286	270	261	264	251	312	337	325
Freight and shipping.....	167	228	294	252	222	219	278	275
Canadian overseas expenditures.....	97	191	499	1,085	721	104	—	—
All other current debits.....	132	154	189	482	191	313	344	337
<b>TOTALS, CURRENT DEBITS.....</b>	<b>1,967</b>	<b>2,275</b>	<b>2,858</b>	<b>3,539</b>	<b>2,910</b>	<b>2,905</b>	<b>3,661</b>	<b>3,667</b>
<b>C. NET BALANCE ON CURRENT ACCOUNT.....</b>	<b>+491</b>	<b>+1,101</b>	<b>+1,206</b>	<b>+1,018</b>	<b>+1,546</b>	<b>+460</b>	<b>+85</b>	<b>+472</b>
<b>D. CAPITAL TRANSACTIONS—</b>								
Net retirements of Canadian securities held abroad.....	-229	-351	-176	-108	-120	-315	-275	+37
Net sales of outstanding securities by Canada (+) or purchases (-).....	+38	+148	+272	+198	+351	+214	-4	-17
Net Loans and Advances by Canadian Government to Other Countries <sup>1</sup> —								
Loan of 1942 to United Kingdom.....	—	-700	+18	+57	+64	+89	+104	+64
Other loans and advances..	—	—	—	—	-105	-750	-563	-126

<sup>1</sup> For footnotes, see end of table, p. 951.



### 3.—Balance of International Payments between Canada and All Countries, 1941-48 —concluded

(Millions of Canadian Dollars)

Item	1941	1942	1943	1944	1945	1946	1947	1948 <sup>p</sup>
<b>D. CAPITAL TRANSACTIONS—concl.</b>								
Change in liquid reserves of gold and United States dollars (increase (-)).....	+160	-144	-364	-278	-667	+251	+743	-496
Change in Sterling balances (increase (-)).....	-728	+818	—	+4	-1	+15	-1	+4
Other capital movements.....	+262	+123	-427	+79	-215	+129	-58	+84
Net Movement of Capital.....	-497	-106	-677	-48	-693	-367	-54	-450
Mutual Aid and 1942 contribution.....	—	-1,000	-512	-936	-748	-15	—	—
Contributions to UNRRA, military and other relief....	—	-2	-6	-24	-110	-82	-38	-19
Balancing item <sup>2</sup> .....	+6	+7	-11	-10	+5	+4	+7	-3

<sup>1</sup> Excludes repayments of \$5,000,000 on wheat loan to the Union of Soviet Socialist Republics in 1946 and 1947, and interim advances to Sterling Area in 1945 and 1946 which are included in Other Capital Movements —\$209,000,000 in 1945 and \$112,000,000 in 1946. <sup>2</sup> Reflects possible errors and the omission of certain factors that cannot be measured statistically.

### 4.—Balance of International Payments between Canada and the Sterling Area, 1941-48

(Millions of Canadian Dollars)

Item	1941	1942	1943	1944	1945	1946	1947	1948 <sup>p</sup>
<b>A. CURRENT CREDITS—</b>								
Merchandise exports — after adjustment.....	1,098	1,541	1,763	1,970	1,776	895	1,115	996
Tourist expenditures.....	3	2	1	2	2	4	8	10
Interest and dividends.....	5	7	5	9	8	9	13	13
Freight and shipping.....	119	127	148	169	183	141	153	137
War services.....	74	130	128	128	81	18	48	55
All other current credits.....	22	19	21	29	38	82	45	47
<b>TOTALS, CURRENT CREDITS....</b>	<b>1,321</b>	<b>1,826</b>	<b>2,066</b>	<b>2,307</b>	<b>2,088</b>	<b>1,149</b>	<b>1,382</b>	<b>1,258</b>
<b>B. CURRENT DEBITS—</b>								
Merchandise imports — after adjustment.....	279	226	200	196	213	267	342	479
Tourist expenditures.....	3	2	2	2	2	4	12	16
Interest and dividends.....	68	51	52	56	54	55	54	51
Freight and shipping.....	36	49	47	33	34	38	37	40
Canadian overseas expenditures	97	191	499	1,085	696	73	—	—
All other current debits.....	33	38	50	56	47	43	63	55
<b>TOTALS, CURRENT DEBITS....</b>	<b>516</b>	<b>557</b>	<b>850</b>	<b>1,428</b>	<b>1,046</b>	<b>480</b>	<b>508</b>	<b>641</b>
<b>C. NET BALANCE ON CURRENT ACCOUNT.....</b>	<b>+805</b>	<b>+1,269</b>	<b>+1,216</b>	<b>+879</b>	<b>+1,042</b>	<b>+669</b>	<b>+874</b>	<b>+617</b>
<b>D. CAPITAL TRANSACTIONS—</b>								
War Loan to United Kingdom.	—	-700	+18	+57	+64	+89	+104	+64
Post-war Loan to United Kingdom.....	—	—	—	—	—	-540	-423	-52
Official repatriations.....	-188	-296	-4	-2	-1	-1	—	—
Change in £ Balances [decrease (+)].....	-728	+818	—	+4	-1	+15	-1	+4
All other capital movements (net).....	+109	-67	-580	-57	-412	-78	-56	-40
<b>Net Movement of Capital.....</b>	<b>-807</b>	<b>-245</b>	<b>-566</b>	<b>+2</b>	<b>-350</b>	<b>-515</b>	<b>-376</b>	<b>-24</b>
Mutual Aid and 1942 contribution.....	—	-1,000	-503	-834	-660	-5	—	—
Special receipts of convertible exchange <sup>1</sup> .....	—	-23	-143	-55	-33	-150	-505	-597
Balancing item <sup>2</sup> .....	+4	-1	-4	+8	+1	+1	+7	+4

<sup>1</sup> This represents gold and United States dollars received from the United Kingdom in part settlement of her deficiency with Canada and used, in turn, to settle part of Canada's deficiency with the United States.

<sup>2</sup> Reflects errors and omissions of certain factors that cannot be measured statistically.

### 5.—Balance of International Payments between Canada and Foreign Countries, 1941-48

(Millions of Canadian Dollars)

Item	1941	1942	1943	1944	1945	1946	1947	1948 <sup>p</sup>
<b>CURRENT ACCOUNT—</b>								
Gross Credits.....	1,137	1,550	1,998	2,250	2,368 <sup>r</sup>	2,216 <sup>r</sup>	2,364 <sup>r</sup>	2,881
Gross Debits.....	1,451	1,718	2,008	2,111	1,864	2,425	3,153 <sup>r</sup>	3,026
<b>NET BALANCES, CURRENT ACCOUNT</b>	<b>-314</b>	<b>-168</b>	<b>-10</b>	<b>+139</b>	<b>+504<sup>r</sup></b>	<b>-209<sup>r</sup></b>	<b>-789<sup>r</sup></b>	<b>-145</b>
<b>CAPITAL TRANSACTIONS—</b>								
Net retirements of Canadian securities.....	-31	-25	-162	-74	-88	-238	-234 <sup>r</sup>	+51
Net sales of outstanding securities	+74	+156	+298	+225	+392 <sup>r</sup>	+268 <sup>r</sup>	+5 <sup>r</sup>	-13
Net change in liquid reserves of gold and United States dollars [decline (+) increase (-)].....	+160	-144	-364	-278	-667	+251	+743	-496
Export credits and interim advances (net).....	—	—	—	—	-105	-210	-140	-74
Other capital movements (net)...	+109	+152	+117	+77	+125	+77	-521 <sup>r</sup>	+106
Net Movement of Capital.....	+312	+139	-111	-50	-343 <sup>r</sup>	+148 <sup>r</sup>	+322	-426
Mutual Aid.....	—	—	-9	-102	-88	-10	—	—
Contributions to UNRRA, military and other relief.....	—	-2	-6	-24	-110	-82	-38	-19
Special receipts of convertible exchange <sup>2</sup> .....	—	+23	+143	+55	+33	+150	+505	+597
Balancing item <sup>3</sup> .....	+2	+8	+7	-18	+4	+3	— <sup>r</sup>	-7
<b>A. CURRENT RECEIPTS FROM UNITED STATES—</b>								
Merchandise exports (adjusted)	566	911	1,224	1,444	1,134	948	1,061 <sup>r</sup>	1,508
Net exports of non-monetary gold.....	204	184	142	110	96	96	99	119
Tourist and travel expenditures.	107	79	87	117	163	216	241 <sup>r</sup>	270
Interest and dividends.....	39	43	34	42	48 <sup>r</sup>	47 <sup>r</sup>	35 <sup>r</sup>	37
Freight and shipping.....	64	92	137	146	134	101	104 <sup>r</sup>	132
All other current credits.....	65	152	274	176	169	159	171 <sup>r</sup>	174
<b>TOTALS, CURRENT RECEIPTS....</b>	<b>1,045</b>	<b>1,461</b>	<b>1,898</b>	<b>2,035</b>	<b>1,744<sup>r</sup></b>	<b>1,567<sup>r</sup></b>	<b>1,711<sup>r</sup></b>	<b>2,240</b>
<b>B. CURRENT PAYMENTS TO UNITED STATES—</b>								
Merchandise imports (adjusted)	910	1,116	1,311	1,113	1,119	1,378	1,951	1,797
Tourist and travel expenditures	18	24	34	56	81	130	152	112
Interest and dividends.....	214	215	205	203	192	250	274	267
Freight and shipping.....	131	179	247	219	188	169	221 <sup>r</sup>	216
All other current debits.....	90	107	120	413 <sup>4</sup>	128	247	248 <sup>r</sup>	249
<b>TOTALS, CURRENT PAYMENTS...</b>	<b>1,363</b>	<b>1,641</b>	<b>1,917</b>	<b>2,004</b>	<b>1,708</b>	<b>2,174</b>	<b>2,846<sup>r</sup></b>	<b>2,641</b>
<b>C. NET BALANCES ON CURRENT ACCOUNT WITH UNITED STATES..</b>	<b>-318</b>	<b>-180</b>	<b>-19</b>	<b>+31</b>	<b>+36<sup>r</sup></b>	<b>-607<sup>r</sup></b>	<b>-1,135<sup>r</sup></b>	<b>-401</b>

<sup>1</sup> Includes the gold subscription of \$74,000,000 to the International Monetary Fund as it reduced official reserves.

<sup>2</sup> This represents gold and United States dollars received from the United Kingdom in part settlement of her deficiency with Canada and used, in turn, to settle part of Canada's deficiency with the United States.

<sup>3</sup> Reflects errors and omissions of certain factors that cannot be measured statistically.

<sup>4</sup> Includes \$280,000,000 special payments to United States Treasury.

## Section 2.—Tourist Trade Statistics

The tourist trade continues as an important invisible item in Canada's balance of international payments as shown in the tables at pp. 950-952. Being one of the nation's great service industries, it represents in economic terms the desire on the part of residents of other countries to experience more of Canada's scenic beauty, the invigorating climate, religious shrines and places of historical interest. To maintain this interest large capital expenditures have been made on hotel accommodation,

improved highways, national parks and many other attractions. The desire to travel has been stimulated by modern progress in the form of better roads, comfortable transport facilities, more leisure and improved working conditions.

Expenditures of travellers from other countries in Canada have comparable effects on the balance of payments with the export of commodities and, similarly, the expenditures of Canadian travellers in other countries influence the balance of payments as the import of goods from abroad. Hence a most important factor is the balance of revenue remaining after total disbursements by Canadian travellers abroad have been deducted from total receipts left in Canada by departing non-residents. Expenditures in Canada during 1948 by residents of other countries rose to a new high of \$283,000,000\*, while the expenditures of Canadian travellers in other countries dropped to \$134,000,000 from \$167,000,000 in the previous year. As a result, net receipts were approximately \$148,600,000 compared with a previous high of \$90,000,000 in 1929 and a low of \$45,000,000 in 1933.

The industry of catering to visitors from other countries has become one of major importance and employment created by the effects of an inflow of tourist funds is widely distributed throughout Canada. Although the whole Canadian economy benefits as a result, the benefit is of particular significance to some otherwise unproductive parts of the country which have natural tourist attractions. The tourist trade has raised the standard of living in such places and the influx of visitors has given them a better understanding of Canada.

Some light is thrown on the flexibility of the traffic and on Canada's capacity to provide overnight accommodation for transients by an investigation into the average number of travellers from the United States who remained overnight in Canada at various seasons of the year 1948. The number of United States travellers requiring overnight accommodation varied from a minimum of 32,000 for an average night in February to a maximum of 254,000 for an average night in August. It can be assumed that the averages mentioned are exceeded on most Saturdays and Sundays and indications are that when Labour Day and Independence Day fall close to a week-end the accommodation provided far outstrips the averages.

**United States Travel Expenditures in Canada.**—Expenditures in Canada during 1948 by travellers from the United States totalled \$270,000,000,\* an increase of 12 p.c. over the previous high point of \$241,000,000 established in 1947. In 1948 the short-term traffic made up approximately 24 p.c. of the total expenditures compared with 19 p.c. in 1947, whereas the longer-term traffic accounted for 76 p.c. of the total compared with 81 p.c. in the previous year. Average expenditure rates by non-permit motorists entering Canada for periods of less than 48 hours were approximately 39 p.c. higher than in 1947 and those of all short-term motorists were 60 p.c. higher. Heavier spending by short-term motorists reflects increased purchases of foodstuffs and other commodities that were more plentiful or at more attractive prices in Canadian border communities as well as increased outlays on recreation. Total expenditures of motorists entering on customs permits, who are entitled to remain for 48 hours or longer or to leave by a point

\* Subject to revision.

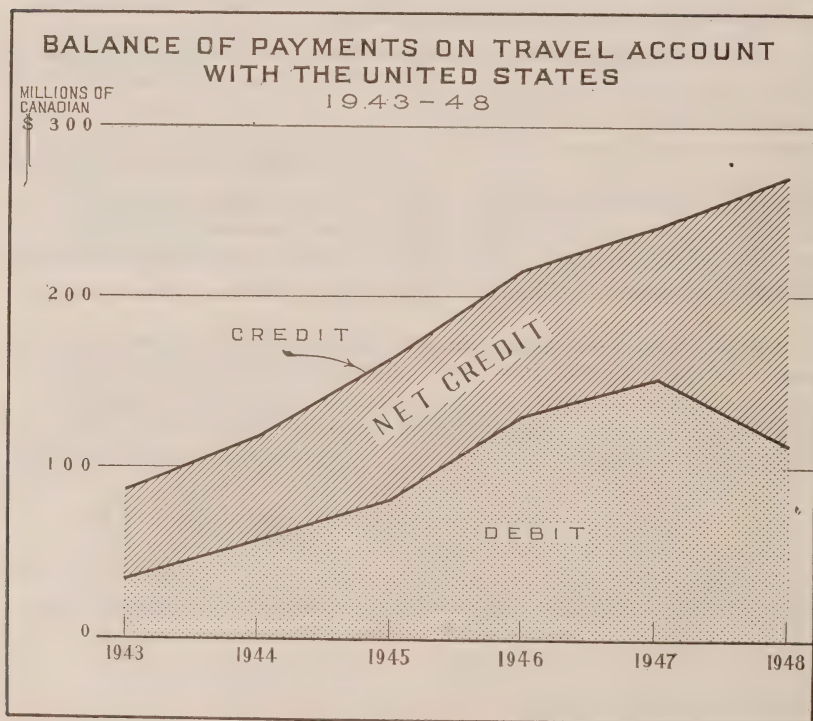


other than that of entry, were about 14 p.c. greater than in 1947. For the first time since 1941 receipts from motorists exceeded those of travellers entering Canada from the United States by all other means of transportation.

Receipts from travellers arriving by train remained at \$56,000,000 in 1948, considerably lower than the high level of \$67,000,000 reached in 1944 when automobile traffic was restricted, but well above pre-war levels. Expenditures of travellers entering Canada by bus, including a nominal amount for in-transit passengers who have opportunities to make limited purchases while *en route*, totalled \$21,000,000 in 1948, an increase of 25 p.c. over the previous year.

The volume of traffic entering Canada by air in 1948 was slightly higher than in 1947, but expenditures totalling \$12,000,000 were approximately \$1,000,000 lower than in the previous year. Expenditures of travellers by boat amounted to \$16,000,000, a decrease of \$6,000,000 from 1947. Receipts from travellers arriving by all other means of transportation reached \$23,000,000 in 1948, an increase of 63 p.c. compared with the previous year.

**Canadian Travel Expenditures in the United States.**—The outstanding development in international travel in 1948 was the substantial decrease in expenditures of Canadian travellers in the United States. From an all-time low of \$21,000,000 in 1941 brought about by wartime restrictions on travel, Canadian



expenditures made substantial annual gains until in 1947 they reached a peak of \$167,000,000, a figure more than twice as large as the average annual expenditures for the preceding 20 years. Late in 1947 the virtual elimination of tourist purchases abroad and the establishment of a ration for pleasure travel involving expenditures of United States exchange were introduced as part of the Emergency Exchange Conservation program. Consequently, expenditures of Canadian travellers in 1948 experienced their first decline in seven years—from \$167,000,000 to \$134,000,000. The resulting net credits were \$157,000,000, 52 p.c. more than the previous record of \$103,000,000 which had held since 1929.

In 1948 automobile travel ranked third after train and through bus when considered in relation to expenditures of Canadian travellers in the United States. Automobile traffic, however, has increased more rapidly than bus and the easing of the restrictions on tourist purchases abroad at the beginning of 1949 may well bring a reversal of the relative positions of these two means of travel. Expenditures of Canadian motorists in the United States totalled \$25,000,000 in 1948, the decline being smaller proportionally than for other types of travel. Expenditures of Canadians returning by bus totalled \$26,000,000 in 1948, a decline of 26 p.c. from the previous year.

The greatest drop in expenditures occurred in train travel, the total of \$36,000,000 being 31 p.c. lower than in 1947. The decrease was brought about by a combination of diminished traffic and lighter spending per person. Expenditures of aircraft passengers at \$7,000,000 dropped 19 p.c. whereas travellers by boat spent \$3,000,000, a drop of 24 p.c. Residents of Canada returning from the United States on foot and by ferry, local bus, and all other means of transportation accounted for expenditures of \$16,000,000.

**Travel Between Canada and Overseas Countries.**—Total expenditures in Canada by non-immigrant travellers from overseas countries including Newfoundland were estimated at \$13,000,000 for 1948, compared with \$10,000,000 for 1947. Improved service by water and air brought travellers in greater numbers than in the year before, but currency restrictions abroad kept average expenditures per person to a minimum. Traffic in 1948 contained a larger proportion of travellers from Newfoundland who customarily stay for shorter periods and spend less than travellers from distant countries.

Canadians travelled to overseas countries in greater numbers in 1948 than in 1947, the increase being larger than that which occurred in overseas travellers visiting Canada. A higher proportion of the total than formally travelled by air. Air travellers in general make visits of shorter duration but their rate of spending while abroad is usually higher. As more than one-half the Canadian overseas air traffic is handled by Trans-Canada Air Lines a considerable part of the cost of transportation does not represent a movement of funds out of Canada, and consequently is not included in expenditures of Canadians in overseas countries. Many residents of Canada visit relatives while abroad, a factor tending to restrict overseas expenditures. Total travel expenditures in overseas countries including Newfoundland in 1948 were estimated at \$21,000,000 as against \$15,000,000 in 1947. The result in net debits was \$8,000,000 compared with \$5,000,000 in 1947.

### 6.—Expenditures of Foreign Travellers in Canada and Canadian Travellers Abroad, 1947 and 1948

Class of Traveller	1947			1948 <sup>p</sup>		
	Foreign Expenditures in Canada	Canadian Expenditures Abroad	Excess of Foreign Expenditures in Canada	Foreign Expenditures in Canada	Canadian Expenditures Abroad	Excess of Foreign Expenditures in Canada
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Travellers from and to overseas countries <sup>1</sup>	10,000	15,000	-5,000	13,000	21,000	-8,000
Travellers from and to the United States—						
Automobile.....	118,400	32,600	85,800	141,900	25,100	116,800
Rail.....	56,600	52,200	4,400	55,900	35,900	20,000
Boat.....	22,100	4,100	18,000	16,000	3,100	12,900
Bus (exclusive of local bus).....	16,700	34,600	-17,900	20,800	25,500	-4,700
Aircraft.....	13,100	9,000	4,100	12,100	7,300	4,800
Other (pedestrians, local bus, etc.)....	14,200	19,800	-5,600	23,100	16,300	6,800
Totals, United States.....	241,100	152,300	88,800	269,800	113,200	156,600
<b>Totals, All Countries.....</b>	<b>251,100</b>	<b>167,300</b>	<b>83,800</b>	<b>282,800</b>	<b>134,200</b>	<b>148,600</b>

<sup>1</sup> Includes travel between Canada and Newfoundland.

### 7.—Summary of Highway Traffic at Canadian Border Points, by Provinces, 1947 and 1948

Province or Territory	FOREIGN VEHICLES INWARD					
	Non-Permit Class Local Traffic		Travellers Vehicle Permits		Commercial Vehicles	
	1947	1948	1947	1948	1947	1948
Prince Edward Island.....	—	—	—	—	—	—
Nova Scotia.....	—	—	2,119	2,163	—	—
New Brunswick.....	806,821	845,782	91,298	102,819	62,295	61,791
Quebec.....	199,670	234,153	300,914	335,236	25,339	27,403
Ontario.....	2,967,148	3,420,637	1,005,194	1,125,956	87,982	87,288
Manitoba.....	55,360	57,007	24,407	24,516	3,778	3,191
Saskatchewan.....	19,205	21,364	9,702	11,663	3,745	5,146
Alberta.....	18,024	19,143	23,476	27,662	4,401	2,746
British Columbia.....	77,356	89,324	205,216	191,572	6,175	7,989
Yukon.....	16	11	1,527	2,401	84	316
<b>Totals.....</b>	<b>4,143,600</b>	<b>4,687,421</b>	<b>1,663,853</b>	<b>1,823,988</b>	<b>193,799</b>	<b>195,870</b>
Percentage increase, 1948 over 1947.....	13.1		9.6		1.1	
CANADIAN VEHICLES INWARD						
	Stay of 24 Hours or Less		Stay of Over 24 Hours		Commercial Vehicles	
	1947	1948	1947	1948	1947	1948
Prince Edward Island.....	—	—	—	—	—	—
Nova Scotia.....	3	10	66	56	—	—
New Brunswick.....	575,923	567,559	10,177	11,197	59,569	57,085
Quebec.....	241,669	235,403	51,977	46,882	28,026	29,005
Ontario.....	601,807	591,232	71,999	66,502	56,273	55,473
Manitoba.....	54,493	47,818	17,729	14,739	7,319	5,106
Saskatchewan.....	36,231	29,000	9,782	11,279	7,325	6,907
Alberta.....	19,226	21,319	8,503	12,119	6,994	5,604
British Columbia.....	271,816	249,254	39,555	37,534	15,942	18,580
Yukon.....	—	1	—	7	4	64
<b>Totals.....</b>	<b>1,801,168</b>	<b>1,741,596</b>	<b>209,788</b>	<b>200,315</b>	<b>181,452</b>	<b>177,824</b>
Percentage decrease, 1948 from 1947.....	3.4		4.7		2.0	



**Tourist Information.**—Tourist information is supplied generally by the Canadian Travel Bureau, Ottawa, while detailed information on the National Parks and historic sites may be obtained from the National Parks Bureau, Department of Mines and Resources, Ottawa. For advice regarding specific provinces or particular cities or resorts, the tourist may apply to the provincial or municipal bureau of information concerned. See Chapter XXX.

### **PART III.—THE GOVERNMENT AND FOREIGN TRADE\***

#### **Section 1.—Foreign Trade Service and Associated Agencies Concerned with the Development of Foreign Trade**

Foreign trade contributes substantially to the welfare and prosperity of Canadians, due largely to the fact that the productive capacity of Canada is greater than the ability of her population to consume the output of farms, factories, forests, fisheries and mines. Every effort is made, therefore, to establish and maintain close commercial relations with other countries whose markets are essential to the national economy. It is appreciated, however, that two-way trade should be encouraged, in order that goods and services may be accepted in partial payment for the products Canada is in a position to export. Furthermore, many commodities that are not indigenous to this country have to be imported from abroad, some being required for Canadian industrial processes. Others may be classed as consumer goods, necessary for the maintenance of a high standard of living.

Although many private firms have established connections in other countries that enable them to maintain a steady flow of goods in either direction, others require the assistance of government agencies in finding markets or sources of supply. Import and export controls, imposed by many countries for a variety of reasons, together with post-war foreign exchange difficulties, present problems that no single firm or even an association of manufacturers, exporters or importers can solve without intervention on the part of government representatives.

The Foreign Trade Service of the Department of Trade and Commerce and a number of associated agencies are at the disposal of exporters and importers, engaged directly in the development of Canada's commercial relations with other countries. These include:—

**Trade Commissioner Service.**—The Trade Commissioner Service might be defined as the sales department of the Foreign Trade Service. Consisting of a headquarters at Ottawa and 44 offices in 36 Commonwealth and other countries, the organization seeks to place Canada in as many world markets as possible. The work of the Trade Commissioners in the field is co-ordinated at Ottawa by four global areas headed by area chiefs. The area officers are familiar with every aspect of foreign trade in their geographical or political areas and are responsible to the Director of the Division for the presentation of official information on all trade matters in their respective territories.

Trade Commissioners bring together exporters and importers of Canada and other countries. They study potential markets for specific Canadian products, report on the exact kind of goods required, competitive conditions, trade regulations, tariffs, shipping and packaging regulations. Inquiries for Canadian goods are passed to Ottawa or directly to interested Canadian firms. For the Canadian importer,

\* Prepared in the several Branches concerned and collated in the Publicity Division, Department of Trade and Commerce, Ottawa.

Trade Commissioners seek sources of raw materials and other goods wanted in Canada, and give assistance to the foreign exporter who wishes to market his products in Canada.

In countries where Canada maintains a diplomatic mission, as well as a trade office, Trade Commissioners form an integral part of the mission and assume the titles of Commercial Counsellor or Commercial Secretary. In some foreign countries they also act as Consuls or Vice-Consuls, according to their status as Foreign Service Officers. To refresh their knowledge of the Canadian industrial picture as a whole, tours of Canadian industrial centres are arranged from time to time for Trade Commissioners. Contacts with Canadian exporters and importers are made or re-established, and the Trade Commissioners are given an opportunity to pass on information regarding the trade conditions and potentialities of their territories directly to those most concerned.

Trade Commissioner Offices are located in the following countries: Argentina, Australia (Sydney and Melbourne), Belgian Congo, Belgium, Brazil (Rio de Janeiro and São Paulo), British West Indies (Jamaica and Trinidad), Chile, China, Colombia, Cuba, Egypt, France, Germany, Greece, Guatemala, Hong Kong, India, Ireland, Italy, Japan, Mexico, the Netherlands, New Zealand, Norway, Pakistan, Peru, Philippine Islands, Portugal, Singapore, South Africa (Johannesburg and Cape Town), Sweden, Switzerland, Turkey, United Kingdom (London, Liverpool and Glasgow), the United States (Washington, New York and Los Angeles), and Venezuela. Canadian representatives of the Department of Trade and Commerce are attached to the Canadian Military Mission in Germany and the Canadian Mission in Japan. There are also regional offices in Vancouver and St. John's to assist exporters and importers in Western Canada and Newfoundland.

**Commodities Branch.**—Commodity trade promotion is the particular responsibility of a Commodities Branch, which co-ordinates the work of specialists in the Export and Import Divisions, as follows: Plant Products; Live-stock and Animal Products; Dairy Products, Poultry, Honey and Tobacco; Fish and Fish Products; Beverage and Grocery Products; Oils and Fats; Machinery and Industrial Equipment; Chemicals and Allied Products; Agricultural Machinery, Aircraft and Air Conditioning Equipment; Non-Ferrous Metals; Iron and Steel Products; Industrial Electrical and Electronic Equipment; Automotive Equipment; Non-Metallic Minerals; Wood and Wood Products; Wood-pulp, Paper and Paperboard; Textiles, Leather and Rubber; and General Products.

Related services, rendered by the Transportation and Communications Division and Priorities Branch, are administered by the Commodities Branch, together with the following control agencies: Export Permit Branch, Timber Control, and the Emergency Import Control Division.

Commodity officers are in constant communication with Canadian Government Trade Commissioners, providing them with information concerning supply conditions in Canada. Market data are supplied to Canadian exporters, who are advised of opportunities for the sale of their products, regulations governing trade, and the nature of competition in various countries. A similar service is rendered on behalf of importers, information concerning new sources of supply for materials and manufactures required in this country being sought from Canadian Government Trade Commissioners. Commodity officers familiarize themselves with conditions in their respective industries, by personal visits and exchange of correspondence, in order that they may be in a position to promote sales.

The Export Division maintains an Exporters' Directory, in which are listed Canadian firms and details of products they are in a position to sell abroad. This Directory is confidential and copies are supplied to Canadian Government Trade Commissioners, thereby enabling them to furnish foreign buyers with the latest information concerning products available in Canada.

The Import Division maintains a somewhat similar Importers' Directory. It also maintains a Canadian Trade Services Directory, containing information concerning Canadian customs requirements, invoicing, packaging, merchandising, forwarding facilities, steamship rates, rail transportation and marketing data. This Directory enables Canadian Government Trade Commissioners to obtain recognition for Canada as an organized market, and to facilitate the establishment of closer relations between Canadian importers and their foreign connections.

The Transportation and Communications Division facilitates the shipment of merchandise from the point of origin to its ultimate destination. Liaison is maintained with railways, steamship operators and agents, marine insurance companies, forwarding firms and brokerage houses. Policies initiated by foreign governments, as these affect the movement of Canadian goods, conference rates and regulations established by private steamship companies and the pattern of Canada's foreign trade are kept under constant review.

The Priorities Branch establishes a formal priority rating procedure for the purpose of channelling building materials required for the construction of certain housing, including veterans' homes, military hospitals, military health and occupational centres and other projects essential to the national economy. The provision of more houses, during a period of shortage, is made possible by assigning priority ratings for dwellings, the unit cost of which does not exceed \$10,000.

The Export Permit Branch administers controls on the export of scarce commodities, strategic commodities and items subject to government arrangement. Scarce commodities are subject to constant scrutiny, in order that they may be removed from control as soon as supplies are adequate. Through the operations of this Branch, it is possible to control the export of arms, ammunition, implements of war, atomic energy materials and other strategic items. Controls are maintained on building materials, in order to ensure a high level of construction in Canada. Controls are also maintained on certain food products, as a means of recovering on export the freight assistance and equalization fees involved.

The Emergency Import Control Division administers Schedule III of the Emergency Exchange Conservation Act, pertaining to a specified list of capital goods and production material. Following the decline in Canada's official holdings of gold and United States dollars, it was decided in November, 1947, to curtail imports of products for which a domestic or alternative source could be found. The first objective is to stimulate the manufacture in Canada of goods normally imported from the United States, where Canadian costs are low and production is economic. The second objective is to increase the export of products from Canada's primary and secondary industries, with emphasis on the degree of processing in this country. Another objective is to assist in the modernization of Canadian industry and to encourage the establishment of a more highly integrated Canadian economy. Efforts are being made to reduce the United States content of many Canadian products, particularly those made by foreign-owned branch plants. These plants are being encouraged to export more parts and finished products either to their



parent company or to other foreign markets. The administration of Schedule III is carried on by three Divisions. The Projects Division deals with the expansion of existing facilities and the construction and equipment of new industrial projects requiring imports of capital goods. A "Projects Authorization", when approved, provides assurance to persons considering a project or already having a project under way that individual import permits for goods required to complete a project will not be withheld, if suitable alternatives are not available from Canadian sources of supply at the time import permits are requested. The Allotment Division provides annual permits to cover imports under a group of specified tariff items. A continuous pattern of imports, either of production material or of component parts used by Canadian manufacturers, has thus been established. These permits are also issued to wholesale and retail distributors handling a steady flow of partly and fully manufactured commodities. The Capital Goods Division considers applications for import permits covering goods that do not follow any particular pattern of importation, and for which it is not possible to provide allotment permits on an equitable basis. Applications are refused if the goods in question are available from Canadian sources or are not considered essential to the Canadian economy.

**Economic Research and Industrial Development Branch.**—When the Department of Reconstruction and Supply was reorganized in 1948, the Economic Research Branch was transferred to the Department of Trade and Commerce and renamed the Economic Research and Development Branch. The Branch studies the economy of Canada broadly as related to trade, both domestic and foreign. The Branch has three Divisions: Economic Research; Commercial Relations and Foreign Tariffs; and Industrial Development.

*Economic Research Division.*—The Economic Research Division provides an economic intelligence service for the Department of Trade and Commerce and the Federal Government by keeping under continuous review and reporting on the business situation and outlook in Canada. Particular attention is devoted to major industries, commodities and regions as they are affected by events at home and abroad. A fuller treatment of the scope of its work is given in the Introduction to this volume.

*Commercial Relations and Foreign Tariffs Division.*—The Commercial Relations and Foreign Tariffs Division compiles information on the tariff and customs regulations, foreign exchange and trade documentation of other countries, analyzes the foreign trade situation and the impact of changing foreign tariffs and customs practices and prepares material for the negotiation of trade agreements. The work of this Division in relation to tariffs will be found in Section 2 at pp. 964-977.

*Industrial Development Division.*—This Division was established to co-ordinate federal assistance in the establishment of new industries in Canada, both of domestic and foreign origin. Close liaison is maintained with a widespread network of organizations throughout Canada, including industrial development departments of the provinces, municipalities, railways, banks, power companies, chambers of commerce, boards of trade, the Canadian Manufacturers' Association and other promotional agencies, and with trade commissioners and other Canadian Government offices abroad. Numerous inquiries from foreign concerns and individuals regarding the manufacture of new products in Canada under licence or royalty, and the placing of inventions are also processed.

Programs for the training of foreign technicians in Canada are instituted and carried out by the Division. During 1947 and 1948, Chinese were trained in Canadian industry and a similar program for East Indian trainees was in progress in 1949.

Working in collaboration with the Area Sections of the Canadian Trade Commissioner Service and the Export Division, the Industrial Development Division plans itineraries for visiting delegations and industrial technicians and, on occasion, sends an official to conduct the tour. Arrangements are made also for visiting foreign government officials, technicians, lecturers, scientists and students.

Included in the duties of this Division are: membership in various inter-departmental committees concerned with industrial studies, design and development, the processing of reparation plants and equipment, and the admission of German scientists to Canada for the benefit of Canadian industry. The Division also provides liaison with the War Assets Corporation in the disposal of surplus equipment and plants. Close co-operation is maintained with the Central Mortgage and Housing Corporation to aid in the development of the industrial townsite at Ajax, Ont. Every effort is made to maintain contact with new industries and to assist them in the solution of their problems and the development of plans for export.

**Publicity Division.**—The principal function of the Publicity Division is to furnish the commercial community of Canada with information concerning the assistance obtainable by exporters and importers from the Foreign Trade Service. This Division is responsible also for stimulating a better appreciation by the general public of the importance of trade to the welfare of Canada. The attention of exporters and potential exporters is directed to opportunities for the disposal of their products in markets abroad, and of importers to the sources of supply for raw materials and consumer goods unobtainable in this country. Its principal educational and informative medium is "Foreign Trade", the weekly publication of the Foreign Trade Service, in which are reproduced reports of Canadian Trade Commissioners on conditions in their respective territories, articles by Head Office personnel and economists of the Dominion Bureau of Statistics, news items and charts portraying trade trends. Press releases are prepared and distributed to newspapers at home, and material of a similar character despatched to Canadian Trade Commissioners for distribution to newspapers abroad. Pamphlets and brochures are prepared to supplement other information on foreign markets, sources of supply, documentation, regulations and trade restrictions. Assistance is rendered to correspondents of newspapers and periodicals at home and abroad in the preparation of articles pertaining to various phases of Canada's foreign trade. The educational and promotional work of this Division is supported by advertising at home and abroad. The daily press, periodicals and trade papers, as well as films and radio, are also employed. Although the Publicity Division is part of the Foreign Trade Service, its functions have been expanded to include assistance to the associated agencies of the Department of Trade and Commerce concerned with the development of foreign trade. For example, it handles publicity connected with the projects undertaken by the Canadian Government Exhibition Commission in this and other countries.

**Canadian Commercial Corporation.**—The Canadian Commercial Corporation was established on May 1, 1946, by Act of Parliament to assist in the development of trade between Canada and other nations, to assist persons in Canada to obtain goods and commodities from outside Canada, and to dispose of goods and commodities that are available for export from Canada.

By the terms of the Act, the Corporation assumed the whole of the undertaking of the Canadian Export Board, which was established by Order in Council P.C. 70, of Jan. 31, 1944. This agency was at that time carrying out procurement functions in Canada on behalf of foreign governments, the United Nations Relief and Rehabilitation Administration, and the Canadian Mutual Aid Board. As a result, the Corporation continued without interruption all procurement action being taken on Apr. 30, 1946, by the Canadian Export Board, and has continued to render similar services to a number of foreign governments, particularly those to which Canada has extended loans. In addition, the Corporation has been able to give assistance to Canadians in the procurement of goods from other countries where, by reason of regulations in those countries, it was necessary that transactions should be handled in whole or in part through a Government agency.

By Order in Council P.C. 314, of Feb. 5, 1947, the power, duty and function vested in the Minister of Reconstruction and Supply to purchase or produce munitions of war or supplies, as well as to construct or carry out projects required by the Department of National Defence, was transferred to the Minister of Trade and Commerce. In connection with this transfer, the Minister of Trade and Commerce was authorized to make use of the services of the officers and servants of the Canadian Commercial Corporation. Under this authority, the officers and employees of the Canadian Commercial Corporation have, since Feb. 1, effected all procurement for the Department of National Defence, acting as agents for the Minister of Trade and Commerce.

By an Act to amend the Canadian Commercial Corporation Act, assented to July 17, 1947, the Corporation, as such, was empowered to act as agent on behalf of the Minister of Trade and Commerce in carrying out the powers, duties and functions transferred to him under Order in Council P.C. 314.

The Corporation, therefore, has three separate but related functions. It acts as procurement agency in Canada for foreign governments; it is available to assist Canadian importers; and, in effect, it acts as agent for the Minister of Trade and Commerce in procurement for the Department of National Defence.

**Canadian Government Exhibition Commission.**—The Canadian Government Exhibition Commission by graphic media of all kinds publicizes Canada and helps to sell Canadian products abroad. Under the terms of reference, the Commission is solely responsible for the construction and administration of all government exhibits in International Expositions, Trade Fairs and displays outside Canada, in which the Canadian Government may decide to participate, and of all International Expositions and Trade Fairs sponsored by the Canadian Government which may be held in Canada. The Commission's first fulfilment of the latter half of this responsibility was the development of the Canadian International Trade Fair, held at Toronto in 1948 and again in 1949. Manufacturers and producers in Canada and other countries had an opportunity of displaying their products at this fair.

The Commission also co-operates with Canadian exporters in securing representation for goods at trade fairs and trade promotional displays and, on request, is prepared to advise individual Canadian companies in the preparation of their exhibits.

Though not a producer of literature itself, the distribution of large quantities of materials produced by other Canadian Government Departments and agencies is effected by the Commission at its various presentations.



**Wheat and Grain Division.**—Matters related to Canada's grain trade are handled by the Wheat and Grain Division. This Division assists foreign governments in purchasing Canadian wheat, flour and other cereals, and serves as liaison between the Department of Trade and Commerce and the Canadian Wheat Board.

**Export Credits.**—For the general purpose of protecting and expanding Canadian foreign trade interests, the Export Credits Insurance Act was passed in 1944, and amended in August, 1946, and May, 1948. This Act is in two parts; Part I incorporates the Export Credits Insurance Corporation, and Part II provides for loans or guarantees to governments of other countries or their agencies. In May, 1946, Parliament gave assent to the United Kingdom Financial Agreement Act making available a large credit to the United Kingdom. (See also p. 964.)

*Export Credits Insurance Corporation.*—Administered by a board of directors, including the Deputy Minister of Trade and Commerce, the Deputy Minister of Finance and the Governor of the Bank of Canada, the Export Credits Insurance Corporation insures exporters against losses arising from credit and political risks involved in the export or an agreement for the export of goods. Policies are generally issued on a yearly basis, covering exporters' sales to all countries. The main risks covered by Export Credits Insurance Policies include: insolvency or protracted default on the part of the buyer; exchange restrictions in the buyer's country preventing the transfer of funds to Canada; cancellation of an import licence or the imposition of restrictions on the importation of goods not previously subject to restrictions; the occurrence of war between the buyer's country and Canada, or of war, revolution, etc., in the buyer's country.

The insurance is available under two main classifications—general commodities and capital goods. Coverage for general commodities can be procured by exporters under two types of policies: (1) the Contracts Policy, which insures an exporter against loss from the time he books the order until payment is received or; (2) the Shipments Policy, obtainable at lower rates of premium and which covers the exporter from the time of shipment until payment is received.

Insurance of capital goods offers protection to exporters dealing in plant equipment, heavy machinery, etc., where extended credit for longer periods is often necessary. Specific policies are issued for transactions involving capital goods, but the general terms and conditions are the same as those applicable to policies for general commodities.

The Corporation insures exporters on a co-insurance basis up to a maximum of 85 p.c. of the gross invoice value of shipments. This co-insurance basis also operates in the distribution of recoveries obtained after payment of a loss, and these recoveries are shared by the Corporation and the exporter in the proportions of 85 and 15, respectively.

The Corporation from its inception to June 30, 1949, has issued policies having a total value of \$169,187,189. Claims paid to exporters covering losses sustained by them under the terms and conditions of their policies amounted to \$294,062. A great majority of these claims resulted from exchange transfer difficulties with relatively few arising from insolvencies.

Excess of income over expenditure to June 30, 1949, was \$794,795, which has, in accordance with the practice followed by the Corporation since it began operations, been added to its underwriting reserve.

*Loans to Britain and to Foreign Governments.*—The United Kingdom Financial Agreement Act approved the financial Agreement signed on Mar. 6, 1946, between the Government of Canada and the Government of the United Kingdom. Under this Agreement the Government of Canada extended to the United Kingdom a credit of \$1,250,000,000 to facilitate purchases of goods and services in Canada, to assist the United Kingdom to meet transitional post-war deficits in its current balance of payments, to maintain adequate reserves of gold and dollars, and to assume the obligations of multilateral trade.

Part II of the Export Credits Insurance Act, 1944, as amended, enabled the Governor in Council at any time before Jan. 1, 1948, on the recommendation of the Minister of Finance and the Minister of Trade and Commerce to authorize the Minister of Finance to enter into agreements with foreign governments or their agencies, at their request (a) to provide them with credits to enable them or any person ordinarily resident in such country to pay the cost of Canadian-produced goods or the cost of Canadian services, or (b) to purchase or guarantee securities issued by them for the purpose of making such payments, or (c) to guarantee obligations undertaken or guaranteed by such government or agency under contracts to purchase Canadian goods and services, if such action is deemed advisable for the purpose of facilitating and developing trade or any branch of trade between Canada and any other country.

The total Canadian post-war direct credits to the United Kingdom under the United Kingdom Financial Agreement Act and to other countries under Part II of The Export Credits Insurance Act are shown in Statement I, p. 901.

## Section 2.—The Development of Tariffs

A short sketch of trade and tariffs prior to Confederation is given at pp. 480-482 of the 1940 edition of the Year Book. The 1942 Year Book, at pp. 427-428, traces the development from Confederation to the adoption in 1904 of the present form of preferential tariff.

Owing to the limitations of space in the Year Book, it has been necessary, in regard to tariffs, to adopt the policy of confining any detail regarding commodities and countries to tariff relationships at present in force, and to summarize as much as possible historical data and details of preceding tariffs, giving references to those editions of the Year Book where extended treatments can be found.

### Subsection 1.—The Canadian Tariff Structure

The Canadian Tariff consists mainly of three sets of rates, viz., Preferential, Most-Favoured-Nation, and General. British Preferential rates consisted at first (1898) of a remission of 25 p.c. of the duties ordinarily paid but later (1900) were advanced to 33½ p.c. and, after 1904, took the form of a specially low rate of duty on almost all imported dutiable commodities. This is the first broad category of the tariff structure and these rates are applied to specified goods from British countries if shipped direct to Canada. On certain goods special rates may be applied under the British Preferential tariff; these special rates are lower on those goods than the ordinary British Preferential scale.

The second scale is the Most-Favoured-Nation Tariff. These rates apply to goods from countries that have been accorded tariff treatment more favourable than the General Tariff but which are not entitled to the British Preferential rate. To certain

non-British countries, a special concession under the Most-Favoured-Nation rates may be granted and rates lower than the Most-Favoured-Nation apply by agreement.

The third class of duties is the General Tariff. This is levied on all imports that are not covered by Preferential or Most-Favoured-Nation rates.

British Preferential rates apply to all countries within the Commonwealth. They may, however, be modified downward in their application to specific countries when trade agreements are being revised or discussed between Canada and other Commonwealth countries. The whole tariff structure is very complicated. Almost every Budget that is brought down in the House of Commons changes the incidence of the tariff in some particulars. It would be impossible to attempt here a discussion of tariff schedules. The schedules and rates in force at any particular time may be obtained from the Department of National Revenue, which is responsible for administering the Canadian Tariff.

In all cases where the tariff applies, there are provisions for drawbacks of duty on imports of semi-processed goods used in the manufacture of products later exported. The purpose of these drawbacks is to give Canadian manufacturers a fair basis of competition with foreign producers of similar goods, where it is felt to be warranted. There is a second class of drawbacks known as 'home consumption' drawbacks; these apply mainly to imported materials used in the production of specified classes of goods manufactured for home consumption.

Too often one-sided competition arises out of unfair practices, such as dumping or the manipulation of exchange advantages. Wide powers have been given in certain instances to supplement tariff provisions. Thus, the Minister of National Revenue or, through him, the customs officials have at times been empowered to establish a 'fair market value' as a basis of applying duties to be collected. The term 'fair market value' is vague and open to various interpretations and has been frequently criticized but, in exceptional cases for which they are designed, such valuations have proved effective.

The exchange situation as it affects the Tariff is a different problem. A foreign currency that has become considerably depreciated in relation to the Canadian dollar enables the country concerned to export goods to Canada under a very definite advantage and customs officials have been given power, under conditions such as these, to value imports from such countries at a 'fair rate of exchange'. Much, of course, depends on the manner in which the above powers are applied by the administrative officials and their understanding of the reasons for their application and, while the powers of fixing 'fair market value' and 'fair rate of exchange' have been applied to meet extraordinary conditions in the past, these powers have now been modified by clauses in trade agreements drawn up with individual countries.

**The Tariff Board.**—The Tariff Board, constituted by The Tariff Board Act, 1931, consists of three members, one of whom is chairman and another vice-chairman. The duties and powers of the Board derive from three Statutes of Canada: the Tariff Board Act, the Customs Act, and the Excise Tax Act.

Under the Tariff Board Act the Board makes inquiry into and reports upon any matter in relation to goods that, if brought into Canada or produced in Canada, are subject to or exempt from duties of customs or excise and on which the Minister of Finance desires information. The investigation into any such matter may include inquiry as to the effect that an increase or decrease of the existing rate of duty upon a given commodity might have upon industry or trade, and the extent to which



the consumer is protected from exploitation. It is also the duty of the Board to inquire into any other matter in relation to the trade and commerce of Canada that the Governor in Council sees fit to refer to the Board for inquiry and report. Usually the references take one of two forms: authority for review of sections of the Customs Tariff relating to an entire industry, or for investigation in respect of specified commodities. Under a provision of the Act reports are tabled in Parliament.

Under the provisions of the Customs Act and the Excise Tax Act, the Tariff Board is authorized to act as a tribunal to hear appeals from rulings of the Department of National Revenue in respect of matters of administration including those of excise taxes, tariff classification, value for duty, and drawback of customs duties. Declarations of the Board on appeals, based on findings of fact, have statutory force and effect with provision for appeal to the Exchequer Court of Canada in the case of decisions under the Customs Act. Tariff references and appeals receive public hearings at which interested parties submit oral statements and written briefs relating to matters under consideration.

### Subsection 2.—Tariff Relations with Other Countries

**General Agreement on Tariffs and Trade.**—Canada is one of 23 countries which became contracting parties to the General Agreement on Tariffs and Trade, negotiated at Geneva, Switzerland, in 1947. The original contracting parties were Australia, Belgium, Brazil, Burma, Canada, Ceylon, Chile, China, Cuba, Czechoslovakia, France, India, Lebanon, Luxembourg, The Netherlands, New Zealand, Norway, Pakistan, Southern Rhodesia, Syria, the Union of South Africa, the United Kingdom and the United States. Ten additional countries applied for accession to the agreement and negotiated with the original members at Annecy, France, in 1949. (See pp. 968-969.)

Pending formal ratification of the General Agreement, the 23 above-mentioned countries put it into provisional application early in 1948. Under this arrangement, they agreed to exchange certain specified tariff concessions, to give one another most-favoured-nation treatment in matters of trade, tariffs, and internal taxation, and to observe certain commercial provisions so far as these are not inconsistent with existing legislation.

The General Agreement on Tariffs and Trade was the result of international negotiations, begun during the War of 1939-45 and continued at London, Geneva, Havana and Annecy, over periods of many months, during the years 1946-49.

In December, 1945, the United States published a set of principles, entitled "Proposals for Expansion of World Trade and Employment". The United Kingdom expressed its agreement "on all important points in these proposals", accepted them as a basis for international discussion and undertook to use its best endeavours to bring such discussions to a successful conclusion. These proposals formed the basis of international discussions at London during October and November, 1946, by a Preparatory Committee, consisting of representatives of Australia, Belgium, Luxembourg, Brazil, Canada, Chile, China, Cuba, Czechoslovakia, France, India, Lebanon, The Netherlands, New Zealand, Norway, the Union of South Africa, the United Kingdom and the United States. As a result of this work, a draft charter for an International Trade Organization was completed at London and published by the United Nations in October, 1946.

The draft charter, further revised by a committee which met at Lake Success, New York, early in 1947, was the basic document submitted for consideration and elaboration at the second meeting of the Preparatory Committee at Geneva during the summer of 1947, and subsequently at Havana, Cuba, during the following winter. The document thus revised and amended was published on Mar. 24, 1948, as the "Havana Charter for an International Trade Organization". It will enter into effect if and when ratified by a sufficient number of governments as prescribed in Article 103 of the document itself.

At the Geneva Conference of 1947, concurrently with the revision of the draft charter, multilateral tariff negotiations were carried on by 23 countries. The object of these negotiations was to reduce tariffs on a reciprocal and multilateral basis in order to lower trade barriers. There were negotiations between 127 pairs of countries, by which 123 agreements were concluded. The results of these negotiations were embodied in the General Agreement on Tariffs and Trade. Since the charter was still in the draft stage and the International Trade Organization was not yet established, certain of the commercial provisions of the draft charter were incorporated with the tariff schedules in the General Agreement on Tariffs and Trade. The General Agreement is thus a substantive international agreement, independent of the draft charter, although it is provided that on the coming into force of the Charter certain parts and sections of the General Agreement will be superseded by the corresponding provisions of the Charter.

The General Agreement consists of three parts. Part I covers the results of the multilateral negotiations in 20 separate tariff schedules, together with the clauses providing for the exchange of multilateral Most Favoured-Nation treatment.

Part II constitutes a code of international conduct in respect to commercial policy, and covers such matters as national treatment regarding taxation and regulations, freedom of transit, anti-dumping duties, valuation for customs purposes, customs formalities, marks of origin, publication and administration of trade regulations, quantitative restrictions to safeguard the balance of payments, non-discriminatory administration of quantitative restrictions, exchange arrangements, subsidies, purchasing by state-trading enterprises, economic development, and several other commercial matters. These provisions were taken from the draft charter and embodied in the General Agreement.

Part III of the General Agreement relates to its administration.

The Protocol of Provisional Application to the General Agreement had been signed by the middle of 1948, and the general provisions and concessions put into effect by practically all the 23 countries which participated in the conference. Australia, Belgium, Canada, Cuba, France, Luxembourg, The Netherlands, the United Kingdom and the United States signed before Jan. 1, 1948. Czechoslovakia signed on Mar. 20, 1948, followed by China on Apr. 21, South Africa on May 14, India on June 9, Norway on June 10, Southern Rhodesia on June 11, Burma, Ceylon and Lebanon on June 29, and Brazil, New Zealand, Pakistan and Syria on June 30. Chile was granted an extension and did not sign until Feb. 14, 1949. By signing the Protocol, each country committed itself to bring into force Part I (including the tariff schedules), Part II (to the fullest extent not inconsistent with existing legislation), and Part III of the Agreement.

The duration of the General Agreement is for three years but it contains the usual provisions for continuance after Jan. 1, 1951, subject to six months notice of termination. (For more detail regarding the Geneva negotiations and concessions see pp. 873-877 of the 1948-49 edition of the Year Book.)

The draft of the Charter prepared during the Geneva conference in 1947 prepared the way for the full United Nations Conference on Trade and Employment, held at Havana, Cuba, from November, 1947, until the end of March, 1948. At this meeting, further changes in drafting were made since many nations were participating for the first time in this work and presented new points of view. Of the 56 nations at Havana, 53 signed the final Act which authenticated the text of the Charter.

Article 103 of the Charter provides that the International Trade Organization shall be brought into existence if a majority of the signatures to the Final Act have deposited instruments of acceptance by March, 1949, or, failing this, when 20 acceptances have been made. Since neither of these two provisions had been fulfilled the Charter had not entered into force by the end of 1949.

Since the object of the General Agreement is to expand trade on a multilateral basis, invitations were sent out in the autumn of 1948 by the contracting parties to a number of other countries asking them to participate in the General Agreement on Tariffs and Trade. Eleven of these countries accepted the invitation and in April, 1949, they met with the contracting parties at Annecy, France, to carry out tariff negotiations. The acceding countries were Colombia, Denmark, the Dominican Republic, Finland, Greece, Haiti, Italy, Liberia, Nicaragua, Sweden and Uruguay. During the course of the conference, Colombia found it necessary to suspend its negotiations until a later date.

The negotiations at Annecy were conducted between each of the existing contracting parties and the acceding governments. The latter group also negotiated with one another. In all, 140 negotiations between pairs of countries were carried out. As at Geneva, the resulting tariff concessions apply to all members of the General Agreement on Tariffs and Trade under most-favoured-nation provisions. Canada carried on negotiations with all the acceding countries and concluded agreements with each.

Before an acceding country can become a contracting party it must receive the approval of two-thirds of the existing contracting parties. Approval is signified by signing the "Annecy Protocol of Terms of Accession to the General Agreement on Tariffs and Trade" on behalf of each new country. When the two-thirds majority have signed on behalf of a country, it becomes a full-fledged member, provided that it has itself signed the protocol. The opening date for signature was Oct. 10, 1949, and Canada, the United Kingdom and the United States signed on that date on behalf of all the ten new countries.

The Annecy Schedules come into force for each country when it gives notification of its intention to bring them into effect. This step must be taken by Apr. 30, 1950. There is a 30 days delay between the time of notification and the date when the schedule comes into force.

The new schedules contain a large number of tariff concessions of importance to Canada. The most important of these are as follows:—

*Denmark.*—Denmark, which already had a low tariff, agreed to reduce its duties on lobster; crayfish; shrimps; fresh, salted or canned salmon; and artificial silk stockings.



*Dominican Republic.*—The Dominican Republic reduces its rates on lamps and lanterns and their parts, copper wire, aluminum bars, sheets, wire and powder, radios, machines for harvesting sugar cane, herring, mackerel and other fish in brine, whisky, and incandescent mantles for lamps.

*Finland.*—This country reduces its rates on clover seed, whisky, chemicals and medicaments, aluminum powder, and electrical equipment.

*Greece.*—Greece reduces its duties on meat, concentrated milk, herrings, lobster, sardines, wheat flour, whisky, gin, cocoa, box shooks, plywood, asbestos, agricultural machinery, nickel, aluminum, calcium carbide, cod-liver oil, paper pulp, wrapping paper, rubber belting, rubber tires, and inner tubes.

*Haiti.*—Haiti made reductions on aluminum articles, patent medicines, cod-liver oil, soap powders, extracts and perfumes, printed advertisements, radios and parts, sewing machines, apples, cheese, kippered herrings, canned salmon, sardines, hats, and incandescent mantles.

*Italy.*—This country reduces duties on herrings, codfish, stockfish, seed potatoes, apples, wheat, rye, oatmeal, canned meat and vegetables (mixed), canned salmon, sardines, kippered herrings, kipper snacks, mackerel and lobster, polystyrene, sawn lumber of conifers, asbestos cords and threads, brake linings, and several types of agricultural machinery in which Canada has an export interest.

*Liberia.*—This country reduces its duties on meat and fish, dried eggs, plywood, lamps and lanterns, agricultural machinery, insecticides, fertilizers and toilet preparations.

*Nicaragua.*—Nicaragua reduces its rates on patent medicines, newsprint, plywood, oatmeal and whisky.

*Sweden.*—Sweden, which already had a low tariff, reduces its rates on tomato puree, apples, pears, sauces, vitamin concentrates, and nylon stockings.

*Uruguay.*—Uruguay reduces its rates on apples, cardboard, paper (except newsprint), zinc, harvesters, typewriters, adding machines, cash registers, industrial machinery, washing and ironing machines.

Among the numerous tariff concessions granted by existing parties to the General Agreement, which are of actual or potential value to Canada, may be mentioned reduced United States duties on hollow bars and drill steel, forgings, wallboard, paperboard and pulpboard, wrapping paper, miscellaneous manufactures of paper, plywood of birch and alder, wood manufactures, butter, Oka cheese, leather manufactures, hides, footwear with fabric uppers, cellulose compounds, granite and limestone. Czechoslovakia is reducing duties on seed barley and oats, apples, sardines, herring and dried milk. France is reducing its duties on plywood, softwood lumber, seed barley and oats, honey, horses, horse meat, newsprint and corrugated paper. Norway is reducing its duties on electric motors and limiting for a further period the protection that may be accorded to domestic wheat through the operations of the State grain monopoly.

Concurrent with the tariff negotiations, the contracting parties also held sessions to examine matters arising out of the general provisions of the General Agreement on Tariffs and Trade. The first session was held at Havana, Cuba, immediately after the completion of the drafting of the Charter. The second session took place at Geneva during August and September, 1948, and the third session at Annecy, France, in April, 1949.

At the third session, a considerable number of matters affecting trade were studied in detail. Among the more important of these was the examination of statements submitted in support of measures notified under Article XVIII of the General Agreement on Tariffs and Trade. This article pertains to trade restrictions imposed in connection with governmental assistance for economic development. Special exchange agreements for contracting parties, which are not members of the International Monetary Fund were also discussed.

**Other Tariff Relations.**—Apart from the agreements concluded at Annecy and Geneva, Canada has numerous reciprocal tariff arrangements with both Commonwealth and foreign countries. These consist of:—

- (1) application to Canada of some old commercial treaties of the United Kingdom;
- (2) participation in commercial treaties of the United Kingdom by Canadian Acts of Parliament or Orders in Council;
- (3) Canadian Conventions of Commerce or Trade Agreements; and
- (4) exchanges of notes respecting tariff matters.

Although Canada has extended preferential tariff rates to the United Kingdom since 1897, it was not until after the First World War that the first most-favoured-nation agreements were concluded between Canada and foreign countries. In 1922, a Franco-Canadian agreement was signed and, although it did not grant most-favoured-nation treatment as such to France, its provisions were very similar. The following year a most-favoured-nation treaty, including schedules of concessions, was concluded with Italy. As Canada's position as a world trader grew in importance agreements were signed with 32 countries. A number of these lapsed during the War and have not been replaced by new agreements.

Although Canada's trade in many parts of the world was interrupted during the War, nevertheless, it expanded in some areas even during this period, and new commercial agreements were entered into with the Dominican Republic, Paraguay, Venezuela, and Ecuador. Since the end of the War, most-favoured-nation agreements have been made with Turkey, Greece, Italy, China, Nicaragua, Germany and Austria.

Many of Canada's bilateral trade treaties are simply exchanges of most-favoured-nation treatment and do not include schedules of tariff concessions. There are several cases, however, where schedules of tariff concessions have been negotiated and are incorporated into the agreement. The Canada-United States trade treaties of 1935 and 1938 are examples of this type. The benefit received by Canadian exports under most-favoured-nation treatment in any country depends on the tariff and treaty system of the country in question. Some countries possess a single-column tariff and extend any concessions that they may make to all countries without discrimination. Other countries have minimum, intermediate and maximum rates, and their most-favoured-nation rates may be either the minimum or intermediate schedules. In other instances, most-favoured-nation treatment may be subject to certain reservations, such as the withholding of preferential rates granted by one State to another on historical, political or geographical grounds.

The Canadian Tariff Act of 1898 established a purely British preferential column in the Canadian tariff. Since that time, Canada has continued to grant preferential tariff rates on a considerable number of items to many parts of the Commonwealth. In return, a number of Canadian goods receive preferential tariff treatment in most Commonwealth countries.

The United Kingdom introduced preferences in 1919 on the limited number of products then subject to customs duties. With the expansion of the United Kingdom tariff, preferences granted by that country were extended to more commodities. Under the terms of the Ottawa Agreement, signed on Aug. 20, 1932, Canadian goods were exempted from the payment of duties under the Import Duties Act, which imposed duties on a large number of items entering the United Kingdom. This exemption was continued under the Canada-United Kingdom Agreement of 1937, which with certain modifications is still in effect. Canada exchanges preferential rates with several of the self-governing countries of the Commonwealth under Agreements with Australia (1931), New Zealand (1932) and the Union of South Africa (1932). An Agreement with the British West Indies was concluded in 1925.

The following list gives the tariff arrangements in which Canada was participating in October, 1949:—

### Commonwealth Countries

Country	Treaty or Convention	Terms
UNITED KINGDOM.....	Trade Agreement signed Feb. 23, 1937; in force Sept. 1, 1937. Modified by an Exchange of Letters, Nov. 16, 1938, resulting from United Kingdom-United States Trade Agreement of Nov. 17, 1938. Further modified by General Agreement on Tariffs and Trade and Exchange of Notes, Oct. 30, 1947.	Various concessions by both countries, including exchange of lowest tariff rates (some reservations by Canada) and binding against increase of scheduled preferential duties. Extends also to Colonial Empire. Exchange of Notes, 1947, continues in force until Jan. 1, 1951, and thereafter until terminated on six months notice.
IRELAND.....	Trade Agreement signed Aug. 20, 1932; in force Jan. 2, 1933.	Canada concedes British Preferential Tariff in return for most-favoured-nation treatment in Ireland. Made for five years and thereafter until terminated on six months notice.
AUSTRALIA.....	Trade Agreement signed July 8, 1931; in force Aug. 3, 1931. Supplemented by General Agreement on Tariffs and Trade.	Each country accords the other reduced rates on schedules of goods, and otherwise (with a few exceptions in Australia) exchange their British Preferential Tariffs with each other. Made for one year and thereafter until terminated on six months notice. Preferences modified by General Agreement on Tariffs and Trade.
NEW ZEALAND.....	Trade Agreement signed Apr. 23, 1932; in force May 24, 1932. Supplemented by General Agreement on Tariffs and Trade.	Exchange specific preferences on scheduled goods and otherwise concede British Preferential Tariffs reciprocally. Made for one year, but kept in force by short-term extensions. Since Sept. 30, 1941, in force until terminated on six months notice.



## Commonwealth Countries—concluded

Country	Treaty or Convention	Terms
UNION OF SOUTH AFRICA.	Trade Agreement signed Aug. 20, 1932; in force Oct. 13, 1932. Supplemented by General Agreement on Tariffs and Trade.	Agreement extends list of preferences formerly exchanged in absence of formal Agreement. Made for five years and thereafter until terminated on six months notice.
SOUTHERN RHODESIA..	Preferences granted modified by the General Agreement on Tariffs and Trade. Protocol of Provisional Application signed June 11, 1948. (The reduced duty rates were brought into force on May 19, 1948.)	A Trade Agreement of Aug. 20, 1932, terminated on Jan. 2, 1938, on notice from Southern Rhodesia; Canada continued to grant British Preferential Treatment and Southern Rhodesia tariff preferences granted other Dominions. Modified by General Agreement on Tariffs and Trade. G.A.T.T. provisions continue in force until Jan. 1, 1951, and thereafter until terminated on six months notice.
INDIA.....	Existing tariff treatment modified by the General Agreement on Tariffs and Trade. Protocol of Provisional Application signed June 8, 1948, provisionally brought into force July 8, 1948.	Canada accords India British Preferential treatment; India grants no tariff preferences to Canada. Modified by General Agreement on Tariffs and Trade. G.A.T.T. provisions continue in force until Jan. 1, 1951, and thereafter until terminated on six months notice.
PAKISTAN.....	Existing tariff treatment modified by the General Agreement on Tariffs and Trade. Protocol of Provisional Application signed June 30, 1948, provisionally brought into force July 30, 1948.	Canada grants Pakistan British Preferential treatment; Pakistan grants no tariff preferences to Canada. Modified by General Agreement on Tariffs and Trade. G.A.T.T. provisions continue in force until Jan. 1, 1951, and thereafter until terminated on six months notice.
CEYLON.....	Exchange of Preferential Tariffs. Modified by the General Agreement on Tariffs and Trade. Protocol of Provisional Application signed June 29, 1948, provisionally brought into force July 29, 1948.	Preferential Tariff treatment modified by General Agreement on Tariffs and Trade. G.A.T.T. provisions continue in force until Jan. 1, 1951, and thereafter until terminated on six months notice.
BRITISH WEST INDIES.	Trade Agreement signed July 6, 1925; in force Apr. 30, 1927. Supplemented by General Agreement on Tariffs and Trade.	Exchange of specific margins of preferences. Made for twelve years and thereafter until terminated on one year's notice. A Canadian notice of Nov. 23, 1938, terminating the Agreement, was replaced by one of Dec. 27, 1939, continuing the Agreement subject to termination on six months notice.

## Non-Commonwealth Countries

Country	Treaty or Convention	Terms
ARGENTINA.....	Trade Agreement signed Oct. 2, 1941; provisionally brought into force Nov. 15, 1941.	Exchange of most - favoured - nation treatment. Provisional application may be terminated on three months notice. To come into force definitively 30 days after exchange of ratification for two years and thereafter until terminated on six months notice.
AUSTRIA.....	By Order in Council, Canada extends to Austria most-favoured-nation treatment, effective Sept. 7, 1949. Austria also grants most - favoured - nation treatment to Canada. This arrangement was made without exchange of notes or other formal agreement.	
BENELUX (BELGIUM, LUXEMBOURG AND THE NETHERLANDS) BELGIAN COLONIES, SURINAM AND CURAÇAO.	General Agreement on Tariffs and Trade. Protocol of Provisional Application signed Oct. 30, 1947, and provisionally brought into force Jan. 1, 1948.	Exchange of most - favoured - nation treatment including scheduled concessions. <sup>1</sup>
BOLIVIA.....	Order in Council of July 20, 1935, accepted Article 15 of the United Kingdom - Bolivia Treaty of Commerce of Aug. 1, 1911.	Exchange of most - favoured - nation treatment. May be terminated on one years notice.
BRAZIL.....	Trade Agreement signed Oct. 17, 1941; provisionally in force from date of signing and definitively on Apr. 16, 1943. Supplemented by General Agreement on Tariffs and Trade, Protocol of Provisional Application signed June 30, 1948.	Exchange of most - favoured - nation treatment. Made for two years from Apr. 16, 1943, and thereafter for one-year periods until terminated on six months notice. <sup>1</sup>
BURMA.....	General Agreement on Tariffs and Trade. Protocol of Provisional Application signed June 29, 1948.	Exchange of most - favoured - nation treatment. <sup>1</sup>
CHILE.....	Trade Agreement signed Sept. 10, 1941; in force provisionally Oct. 15, 1941, and definitively on Oct. 29, 1943. Supplemented by General Agreement on Tariffs and Trade. Protocol of Provisional Application signed Feb. 14, 1949.	Exchange of most - favoured - nation treatment. Made for two years from Oct. 29, 1943, and thereafter until terminated on six months notice. <sup>1</sup>
CHINA.....	<i>Modus v'vendi</i> signed Sept. 26, 1946; in effect Sept. 28, 1946. Supplemented by General Agreement on Tariffs and Trade. Protocol of Provisional Application signed Apr. 21, 1948.	Exchange of most - favoured - nation treatment. Made for one year and thereafter until terminated on three months notice.

## Non-Commonwealth Countries—continued

Country	Treaty or Convention	Terms
COLOMBIA.....	Treaty of Commerce with United Kingdom of Feb. 16, 1866, applies to Canada. A Trade Agreement between Colombia and Canada was signed Feb. 20, 1946, but has not been put into force.	Exchange of most-favoured-nation treatment. Protocol of Aug. 20, 1912, provides means for separate termination by Dominions on one years notice. Exchange of Notes Dec. 30, 1938, continued Treaty in force until Sept. 30, 1939, and thereafter until terminated on three months notice.
COSTA RICA.....	Exchange of Notes with United Kingdom of Mar. 1-2, 1933, and Canadian Order in Council of July 20, 1935.	Exchange of most-favoured-nation treatment.
CUBA.....	General Agreement on Tariffs and Trade. Protocol of Provisional Application signed Oct. 30, 1947, and provisionally brought into force Jan. 1, 1948.	Exchange of most-favoured-nation treatment including scheduled concessions. <sup>1</sup>
CZECHOSLOVAKIA.....	Convention of Commerce signed Mar. 15, 1928, in force Nov. 14, 1928. Supplemented by General Agreement on Tariffs and Trade. Protocol of Provisional Application signed Mar. 20, 1948, by Czechoslovakia.	Exchange of most-favoured-nation treatment. Made for four years and thereafter until terminated on one years notice.
DENMARK.....	Treaties of Peace and Commerce with United Kingdom of Feb. 13, 1660-61, and July 11, 1670, apply to Canada. <sup>2</sup>	Exchange of most-favoured-nation treatment. Declaration of May 9, 1912, provides means for separate termination by Dominions on one years notice. <sup>2</sup>
DOMINICAN REPUBLIC	Trade Agreement signed Mar. 8, 1940; in force provisionally Mar. 15, 1940, and definitively Jan. 22, 1941. <sup>2</sup>	Exchange of most-favoured-nation treatment. Made for three years from Jan. 22, 1941, and thereafter until terminated on six months notice. <sup>2</sup>
ECUADOR.....	<i>Modus vivendi</i> by Exchange of Notes of Aug. 26, 1941; in force Oct. 1, 1941.	Exchange of most-favoured-nation treatment. Made for an indefinite period subject to termination on three months notice.
EL SALVADOR.....	Exchange of Notes of Nov. 2, 1937; in force Nov. 17, 1937.	Exchange of most-favoured-nation treatment. Made for one year and thereafter until terminated on four months notice. <sup>2</sup>
FINLAND.....	By Order in Council Canada has extended most-favoured-nation treatment to Finland since Nov. 17, 1948. Finland gives most-favoured-nation treatment to Canada. <sup>2</sup>	

For footnotes see p. 977.



## Non-Commonwealth Countries—continued

Country	Treaty or Convention	Terms
FRANCE AND COLONIES	General Agreement on Tariffs and Trade. Protocol of Provisional Application signed Oct. 30, 1947, and provisionally brought into force Jan. 1, 1948.	Exchange of most-favoured-nation treatment including scheduled concessions. <sup>1</sup>
GERMANY.....	Agreement between responsible authorities for Western Germany and Canada, signed Oct. 14, 1948. Various other Allied Nations also adhere to this agreement.	Exchange of most-favoured-nation treatment. In force until Jan. 1, 1951, but may be terminated before then on six months notice.
GREECE.....	<i>Modus vivendi</i> by exchange of notes of July 28, 1947; effective Aug. 28, 1947. <sup>2</sup>	Exchange of most-favoured-nation treatment. Made for a period of one year and thereafter unless terminated on three months notice. <sup>2</sup>
GUATEMALA.....	Trade Agreement signed Sept. 28, 1937; in force Jan. 14, 1939.	Exchange of most-favoured-nation treatment. Made for three years and thereafter until terminated on six months notice.
HAITI.....	Trade Agreement signed Apr. 23, 1937; in force Jan. 10, 1939. <sup>2</sup>	Exchange of most-favoured-nation treatment. Made for one year and thereafter until terminated on six months notice. <sup>2</sup>
ITALY.....	Italian Peace Treaty, Feb. 10, 1947. Canadian Order in Council, Feb. 24, 1948; effective Feb. 20, 1948. <sup>2</sup>	For a period of eighteen months following the signing of the Italian Peace Treaty on Feb. 10, 1947. Italy was obligated to grant most-favoured-nation rates to Canada on a reciprocal basis. <sup>2</sup>
LEBANON.....	Special Arrangement by Order in Council of Nov. 19, 1946. Supplemented by General Agreement on Tariffs and Trade. Protocol of Provisional Application signed June 29, 1948.	Exchange of most-favoured-nation treatment. <sup>1</sup>
LIBERIA.....	2	2
MEXICO.....	Trade Agreement signed Feb. 8, 1946; in force provisionally same date. Ratifications exchanged on May 6, 1947.	Exchange of most-favoured-nation treatment. Entered into force definitively 30 days after exchange of ratifications for two years and thereafter until termination on six months notice.
NICARAGUA.....	Trade Agreement signed Dec. 19, 1946, in force provisionally same date. <sup>2</sup>	Exchange of most-favoured-nation treatment. Provisional application may be terminated on three months' notice. To come into force definitively 30 days after exchange of ratifications for one year and thereafter until terminated on six months notice. <sup>2</sup>

For footnotes see p. 977.

## Non-Commonwealth Countries—continued

Country	Treaty or Convention	Terms
NORWAY.....	Convention of Commerce and Navigation with United Kingdom of Mar. 18, 1826, applies to Canada. Supplemented by General Agreement on Tariffs and Trade. Protocol of Provisional Application signed June 10, 1948.	Exchange of most-favoured-nation treatment. Convention of May 16, 1913, provides means for separate termination by Dominions on one years notice. <sup>1</sup>
PANAMA.....	Order in Council of July 20, 1935, accepted Article 12 of the United Kingdom — Panama Treaty of Commerce of Sept. 25, 1928.	Exchange of most-favoured-nation treatment. In force until terminated on one years notice.
PARAGUAY.....	Exchange of Notes of May 21, 1940, in force June 21, 1940.	Canadian Intermediate Tariff exchanged for most-favoured-nation treatment in Paraguay. In force until terminated on three months notice.
POLAND.....	Convention of Commerce signed July 3, 1935; in force Aug. 15, 1936.	Exchange of most-favoured-nation treatment and special reductions for limited lists of goods. Made for one year and thereafter until terminated on three months notice.
PORTUGAL, INCLUDING MADEIRA, PORTO SANTO, AND AZORES.	Trade Agreements Act of June 11, 1928, accepted Article 21 of the United Kingdom — Portugal Treaty of Commerce of Aug. 12, 1914; in force Oct. 1, 1928.	Exchange of most-favoured-nation treatment. In force until terminated on one years notice.
SPAIN.....	Spanish Treaty Act of June 11, 1928, sanctioned United Kingdom — Spain Treaty of Commerce of Oct. 31, 1922 (revised Apr. 5, 1927); in force Aug. 1, 1928.	Exchange of most-favoured-nation treatment. In force until terminated on six months notice.
SWEDEN.....	United Kingdom — Sweden Convention of Commerce and Navigation of Mar. 18, 1826, applies to Canada. <sup>2</sup>	Exchange of most-favoured-nation treatment. In force until terminated on one years notice. Declaration of Nov. 27, 1911, provides means for separate termination by Dominions on one years notice. <sup>2</sup>
SWITZERLAND.....	United Kingdom — Switzerland Treaty of Friendship, Commerce and Reciprocal Establishment of Sept. 6, 1855, applies to Canada. By exchange of notes Liechtenstein included under terms of this agreement, effective Aug. 21, 1947.	Exchange of most-favoured-nation treatment. In force until terminated on one years notice. Convention of Mar. 30, 1914, provides means for separate termination by Dominions on one years notice.
SYRIA.....	Special Arrangement by Order in Council of Nov. 19, 1946. Supplemented by General Agreement on Tariffs and Trade. Protocol of Provisional Application signed June 30, 1948.	Exchange of most-favoured-nation treatment. <sup>1</sup>

For footnotes see p. 977.

## Non-Commonwealth Countries—concluded

Country	Treaty or Convention	Terms
TURKEY.....	Exchange of Notes signed Mar. 1, 1948.	Exchange of most - favoured - nation treatment. In effect for one year and thereafter until terminated on three months notice.
UNITED STATES.....	The General Agreement on Tariffs and Trade. Protocol of Provisional Application signed Oct. 30, 1947; entered into force provisionally Jan. 1, 1948.	Exchange of most - favoured - nation treatment including scheduled concessions. If at any time General Agreement on Tariffs and Trade is set aside, the Trade Agreement signed Nov. 17, 1938, will again come into effect.
URUGUAY.....	Trade Agreement signed Aug. 12, 1936; in force May 15, 1940. <sup>2</sup>	Exchange of most - favoured - nation treatment. Made for three years and thereafter until terminated on six months notice. <sup>2</sup>
VENEZUELA.....	<i>Modus vivendi</i> signed Mar. 26, 1941; in force Apr. 9, 1941.	Exchange of most - favoured - nation treatment. Made for one year subject to renewal or termination on three months notice; renewed annually by Exchange of Notes, subject to termination on three months notice. Not renewed by Venezuela on Apr. 9, 1949.
YUGOSLAVIA.....	Trade Agreements Act of June 11, 1928, accepted Article 30 of United Kingdom-Serb-Croat-Slovene Treaty of Commerce and Navigation of May 12, 1927; in force Aug. 9, 1928.	Exchange of most - favoured - nation treatment. In force until terminated on one years notice.

<sup>1</sup> General Agreement on Tariffs and Trade in force until Jan. 1, 1951, and thereafter until terminated on six months notice.

<sup>2</sup> This country has applied for accession to the General Agreement on Tariffs and Trade and participated in the tariff negotiations held at Annecy, France, where schedules of concessions were exchanged with Canada. Jan. 1, 1950, is the earliest date on which Canada may become a contracting party and its schedule of concessions enter into force.



## CHAPTER XXIII.—PRICES\*

### CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

### THE ROYAL COMMISSION ON PRICES†

The Royal Commission on Prices was appointed in July, 1948, under the chairmanship of Professor C. A. Curtis of the Department of Economics, Queen's University. Its function was to continue the inquiry, begun by the House of Commons Select Committee on Prices, on the causes of the rise in the cost of living. The Commission held 77 public hearings and examined 179 witnesses drawn from trades and industries across Canada. In addition, 12 national organizations covering wide fields of social and economic activity were asked to submit briefs. The findings of the Commission are contained in a three-volume report which was tabled in the House of Commons on Apr. 8, 1949. Volume I of the Report contains a summary of the other volumes and some general observations and suggestions. Volume II contains an analysis of various factors affecting the rise in prices and Volume III deals with each of 10 industries or commodities investigated and surveys consumer credit.

The Commission found that, "in the main, the post-war price rise in Canada was a consequence of the War, of rising prices abroad, of large export demands financed to some degree by the Canadian Government, and of the capital boom". Fiscal and monetary measures and direct controls offset these forces to some extent and, outside of exceptional cases, the behaviour of particular industries, individuals or groups was not found to be a main cause of rising prices.

**Price Control and Rationing.**—The stability of consumer prices during the War was achieved, to some extent, by the timely introduction of a price ceiling late in 1941. Other factors contributing to the same effect were high rates of taxation which kept down consumer spending, taxes on corporations, wage and salary controls, export controls, import subsidies, foreign exchange control and the introduction of price controls in the United States. The Commission found much evidence to support the withdrawal of price control after the close of hostilities.

The Commission found that selective, rather than general, price control might be justified under exceptional circumstances for a temporary period but it was found to be doubtful that selective price control has much to recommend it in ordinary

\* Except as otherwise credited, this Chapter has been revised in the Prices Section, Labour and Prices Division of the Dominion Bureau of Statistics.

† Summarized from the "Report of the Royal Commission on Prices" in 3 Vols. Price \$2. Obtainable from the King's Printer, Ottawa.

times. It concluded: (a) general price control should not be relied upon for stabilizing prices, and (b) "price control in any form is no substitute for action designed to bring over-all demand into line with over-all supply. It disguises inflation and fails to remove the cause of the trouble".

**External Influences.**— "Foreign prices" the Commission noted "affect Canadian prices most directly through the purchase by Canadians of goods produced outside the country and through the impact on domestic prices of the prices received by Canadians for the goods they export." The import content of goods purchased by Canadians is about 30 p.c.; for capital goods and equipment the percentage is possibly higher. The United States lifted controls in the summer of 1946 and the wholesale index in the United States rose by 35 p.c. in the period May, 1946-March, 1947, the consumer price index rising by 19 p.c. In the same period the Canadian wholesale index rose by 10 p.c. and the cost of living by less than 6 p.c. These Canadian advances would have been higher had it not been for the action of the Government in appreciating the Canadian dollar to parity, in retaining price controls and subsidies on imported and domestic commodities, and in retaining embargoes. Imports also showed a much lower rate of price advance than did United States prices generally and, as a result of the use of bulk contracts with the United Kingdom, export prices rose by only 14 p.c. The Commission was convinced that "in view of the intimate relationship between the economies of the two countries, prices in Canada could only have been insulated by an elaborate and continuing system of export controls or by a government monopoly of selling and by a very complicated system of import subsidies and import allocations or by a government monopoly of buying".

The dollar shortage also contributed to rising prices by the use of domestic substitutes or similar goods obtained from other countries. Larger exports to the United States to improve the dollar position resulted in many instances in increased prices in Canada.

Finally, the decision to extend loans and credits to other countries added to demand without adding to supply, thereby contributing to inflationary tendencies.

**The Investment Boom.**—Post-war capital expenditures have been larger in both dollar amounts and in physical terms than in any other period of Canadian history. Investment expenditures by government did not account for much of this expenditure despite the construction of schools, hospitals, etc. The chief elements were the high level of housing construction and of business investment expenditures to make good deficiencies of the depression and war periods, to enlarge productive capacity and to take advantage of favourable financial conditions, but it is very difficult to determine how important the making of investment expenditures, at the same time as Canada was bidding for resources for other purposes, has been in relation to other price-raising factors.

**Fiscal and Monetary Policy.**—While Canadian fiscal policy during the inflationary period was similar to that followed in the United States and the United Kingdom, the Commission felt that it probably reflected public thinking and discussion, which seemed more concerned about recession than post-war inflation. Nevertheless, the Government "made a determined effort to pay for a high proportion of the costs of the War out of taxes and to finance the rest by methods calculated to reduce the volume of spending". There remained in the hands of the public a large volume of liquid savings which added to the difficulty of keeping the post-war inflation

in check. Special tax concessions to business to encourage capital expenditures, low interest rates and a high rate of spending on current consumption made some inflation inevitable. The Commission was of the opinion that taxes might have been maintained at a somewhat higher rate, though prices would doubtless still have risen albeit at a lower rate of increase.

**Prices and Wages.**—The Commission observed that wages are, in truth, a varying part of total costs of production but higher wages do not necessarily mean higher labour costs per unit of output. Much depends on productivity. "When prices and wages were decontrolled after the War, the average rate of increase in wage rates roughly paralleled the increase in the cost of living, so that real wages changed but little." Taking into account the post-war reduction in income taxes the Commission thought it "probable that most workers are as well off as they were in 1945".

**Prices and Corporate Profits.**—The Commission found that profits reported by Canadian corporations, though somewhat larger in recent years, "contain an element of what is essentially an inventory profit arising from the particular method commonly used in valuing inventories". They also tend to be somewhat overstated because the allowances made for depreciation are probably insufficient to replace, at to-day's cost, the capital which has worn out during the year. Corporate profits have also been increased by extremely profitable sales abroad, and to that extent do not form part of the domestic price. Looking at corporate profits as a whole the Commission did not conclude that "the raising of prices to earn exceptionally high profits was general, or played a major part in the rise in prices since the end of the War".

**Agricultural Prices.**—Agricultural prices have risen more rapidly than prices in general since 1939 but, since the end of the War, farm products prices have risen less than prices of most other groups in the wholesale index. The chief explanation for this lies in the removal of food subsidies which kept food prices down during the War. Farm prices moved upward in response to the acute world shortage of food, an aftermath of the War. Food contracts with the United Kingdom and restrictions on exports to the United States kept Canadian prices from rising to the levels prevailing in export markets.

**The Effect of Mark-ups and Margins on Prices.**—It was general for the distributive trades to maintain the same fixed percentage mark-ups on their various lines of merchandise as their costs rose. This, the Commission felt, increased prices to the consumer much more than a dollar and cent mark-up would have done. One reason given for this was that it is a convenient and quick pricing procedure. The claim was also made that other operating expenses rise in a period when the cost of merchandise is rising and that this procedure is used as a hedge against inventory losses when prices decline. The Commission found it "difficult to justify the augmented dollar profits made by distributors who invariably maintain the same percentage mark-up as when their rate of stock turnover was lower . . . . The increased rate of stock turnover during the War and post-war years, combined with a comparatively small number of mark-downs, would" the Commission felt "have made it possible for the distributive trades to take a lower percentage mark-up and still realize larger net profits in dollar terms".



**Restrictive Business Practices.**—Among the industries examined, the Commission found a number where conditions were highly competitive. There were a few where there was little competition. "More significant is the growing tendency towards monopolistic competition through brand names and special advertising, price leadership by a few large firms . . . and resale price maintenance (by the manufacturer) . . . . The experiences and influences of the war period created conditions conducive to the spread of patterns of behaviour from which active price competition is excluded." The Commission did not find monopolistic practices, however, to be a major factor in the recent rise in prices.

**Prices of Individual Staple Commodities.**—The following ten commodities were those in which "some substantial price increases took place during the past two years":—

*Bread.*—"The tendency among large multiple bakeries has been to minimize price competition and to use expensive sales promotion and advertising". Many of them use retail price maintenance. Margins guaranteed to retailers seemed to the Commission to be out of proportion to the margins that would exist under competitive conditions. "If retailers had greater freedom to compete . . . lower priced bread might have a . . . significant effect on the general price level". The Commission questioned whether the removal of the price ceiling and delayed adjustments in other costs justified increases in prices.

*Butter.*—The removal of the subsidy in 1947 brought about an expected increase of about 10 cents per lb. The lifting of the subsidy on coarse grains also caused a rise in prices but the predominant factor in the price rise was consumer demand.

*Live Stock and Meat.*—The sharply increased prices of pork and beef in 1948 were found to be due largely to external influences. The price of pork was almost entirely determined by United Kingdom contracts and the lifting of the embargo on the export of cattle to the United States strongly influenced the price of beef. The Commission found the primary live-stock industry and retail meat trade very competitive but three large firms control 60 p.c. of the total inspected slaughterings. The three largest packing firms made a net profit of \$4,300,000 in the four months following the removal of controls compared to less than \$1,000,000 in the corresponding period of 1947. Substantial profits were made on holdings in cold storage as a result of inventory appreciation when prices advanced with the changes in United Kingdom contract prices.

*Fruits and Vegetables.*—With the imposition of import restrictions in November, 1947, curtailed supplies and high consumer demand brought about a rise in prices. There was evidence that some wholesalers increased their gross margins to compensate for decreased volume of sales. These enhanced margins did not appear to the Commission to have been altogether necessary.

*Primary Textiles.*—Cotton fabric production, which in 1948 barely equalled the 1939 level, together with high consumer demand caused shortages. Primary cotton manufacturers attributed this to labour difficulties but the Commission thought that it may also have been "due to the fact that they operate with some degree of monopolistic advantage behind a heavy protective tariff".

The concentration of business in the primary wool industry is less than in primary cotton and there is less similarity in the fabrics produced. Operating income as a percentage of sales increased considerably for most firms between 1936-39 and 1947.

The synthetic fibre industry is conducted by three large firms, each occupying a monopoly in its own field. The returns of two of these firms were regarded by the Commission as "very high indeed".

*Secondary Textiles.*—The chief factors in the price rise in the clothing field were found to be increased cost of materials and labour, and the fixed percentage mark-up system.

*Chemical Fertilizers.*—"Prices of chemical fertilizers increased much less than the average of all price rises since the pre-war period." World prices are well above Canadian prices. Rises in domestic prices may be attributed to higher costs for imports and manufacturing. Generally speaking, individual producers have kept their prices at a reasonable level.

*Hides and Leather.*—Increases in prices of hides and leather are felt to have resulted from the influence of world market and United States prices, increases in wages and the increased costs of tanning materials. On the removal of controls, prices rose to meet United States prices and thereafter remained steady.

*Leather Footwear.*—"The rise in the price of shoes reflected the rise in the price of leather." Shoe retailers have a fixed mark-up of about 33 $\frac{1}{3}$  p.c. On the whole the manufacture of leather footwear was regarded by the Commission as very competitive.

*Lumber.*—The Commission found "little evidence to indicate widespread attempts . . . to raise or maintain prices by agreement . . . (or) of price leadership". Unprecedented demand and increased wages trebled the price of lumber in the years 1939-47. Canadian prices, though higher after decontrol, were still below the export price level. There was some evidence that "grading procedure, particularly in Eastern Canada, did not always seem to give sufficient protection to consumers" and a uniform system of grading was recommended.

**Consumer Credit.**—The increased demand for consumer credit was found to have been brought about by a desire for a higher standard of living, increased production, and an increase in the number and size of credit institutions. The Report states, however, that the consumer is seldom aware of what he actually pays for credit, rates quoted in many cases being discount rates on debts to be amortized by equal monthly payments. It was the opinion of the Commission that "if finance charges were stated as annual effective rates rather than as discount rates in loan contracts and literature, the consumer would be able to choose the credit most advantageous to him . . . . Lack of adequate and accurate statistics is one of the major obstacles to a knowledge of Consumer Credit" and it was recommended that the Dominion Bureau of Statistics "broaden and refine its statistics" relative to this indicator.

**Statistics.**—In addition the Commission recommended that the Dominion Bureau of Statistics explore the possibilities of improving the cost-of-living index. A continuing program of consumer expenditure surveys on a sample basis was suggested and, among other things, it was pointed out that "the present system of reckoning shelter costs gives an inadequate picture of true costs". Among other recommendations, a statistical study of productivity was urged and the publication of "an analysis of the way in which the consumer's dollar is divided among the various productive and distributive processes".

**Other Recommendations.**—It was recommended that the Dominion Companies' Act be revised to obtain "uniformity in the quality and quantity of information given in financial statements". More information on inventories, reserves and profits is required and the Federal Government was urged to obtain the co-operation of the Provincial Governments in developing uniform financial reporting under the Act.

Public accounts, the Commission thought, should be published so that the man in the street can understand the effect of government transactions.

The Combines Investigation Commission was urged to devise means to deal with the fixing of resale prices by manufacturers.

In conclusion, the Commission recorded its view that import controls should not be used as a protectionist device.

## Section 1.—Continuing Activities of the Wartime Prices and Trade Board, 1948-49\*

The activities of the Wartime Prices and Trade Board, up to the middle of 1948, in controlling prices and promoting an adequate supply and orderly distribution of essential goods and services, and later in the program of readjustment and decontrol, are described in previous editions of the Canada Year Book. Developments in the last six months of 1948 and in 1949 are presented here.

**Continuing and Reimposed Controls.**—At July 1, 1948, the only commodities remaining under wartime ceiling prices were sugar, edible molasses, primary iron and steel products, oils and fats including soap, lard and shortening.

Early in 1948, ceiling prices were reimposed on butter. Price or mark-up controls were applied during 1948 to a number of commodities, supplies of which were restricted by the Emergency Exchange Conservation Act, namely, canned fruits and vegetables, canned citrus juices, citrus fruits, cabbage, carrots and a number of imported fruits and vegetables. The only subsidies being paid as of July, 1948, were on oils and fats and on steel. On Aug. 1, 1948, the domestic price of wheat was advanced to \$2.00 per bushel in line with the United Kingdom contract price, and a subsidy of 46½ cents per bushel was authorized on western spring wheat going into domestic consumption in order to avoid any increase in the prices of flour and bread. Ceiling prices for flour and bread were reimposed on Aug. 19, 1948.

Butter production in 1948 was insufficient to meet domestic requirements and some controls on the interprovincial movement of butter and its restricted use had to be reimposed. In addition, the Government purchased 15,000,000 lb. of butter in Denmark, Australia and New Zealand. This butter was sold at ceiling prices and the difference between its cost and its selling price was absorbed by the Wartime Prices and Trade Board as a subsidy.

**Decontrol.**—On July 31, 1948, the subsidies paid on oils and fats were discontinued and oils, fats, soaps, shortening and lard were removed from price control. Offshore purchases of oils and fats and crushing stock continued to be allocated to primary users until February, 1949, when the decision of the International Emergency Food Committee to end international allocations made these unnecessary.

In March, 1949, the Minister of Finance in his Budget Speech announced further measures of decontrol. Price ceilings were revoked on flour, bread, butter, sugar, edible molasses, canned fruits and vegetables, and imported apples, celery, lettuce, onions, spinach and tomatoes. Concurrently the subsidy on wheat was removed. The Canadian Sugar Stabilization Corporation continued to be the sole importer of raw cane-sugar, since the wartime arrangements between Canada and the United Kingdom for the joint purchase of all Empire and Commonwealth raw sugars included the 1949 season's production.

The Continuation of Transitional Measures Act was extended by Parliament for another year to Mar. 31, 1950, with a proviso that limited the authority of the Wartime Prices and Trade Board to those goods and services subject to an order of the Board at the time of the amendment (Mar. 26, 1949).

The commodities under price control at that time were: citrus fruits, canned citrus fruit juices, cabbage, carrots, imported grapes and the primary forms of iron and steel. The order regarding cabbage was suspended Mar. 31, 1949. Subsidies paid

\* Prepared by the Wartime Prices and Trade Board.



on scrap as a raw material in steel making were terminated by Sept. 1, 1949, and subventions paid on directed movements were substantially reduced by that time. All remaining controls on the primary forms of iron and steel were removed on Dec. 1, 1949, and Feb. 15 1950. By the latter date the only remaining controls were those on rent.

**Rentals and Shelter.**—All controls on commercial accommodation were removed by Mar. 8, 1948, and no control has been reimposed either on this type of accommodation or on hotel rates, seasonal accommodation or boarding-house rates where meals are supplied.

Decentralization has proceeded in the fields of maximum rentals and eviction control. The provisions first enacted in 1947 permitting landlords to obtain a 10 p.c. increase in maximum rental upon offering the tenant a two-year lease were amended in October, 1948, to permit all landlords whose tenants occupied self-contained housing accommodation to obtain this 10 p.c. increase and a further 5 p.c. if they supplied heat to their tenants, without offering the tenant any security of tenure beyond that conferred by the regulations. At the same time, it was provided that leases of this type of accommodation to a person who was not the tenant on Nov. 1, 1948, were not subject to any control. On Dec. 15, 1948, the provision permitting application to increase a maximum rental which was lower than that prevailing generally for similar accommodation was extended to include in such privilege rooms which formed part of the residence of the landlord—a class designated as 'shared accommodation'.

In May, 1949, the maximum rentals of housing accommodation at Winnipeg, Man., and Victoria, B.C., were increased by special order to cover general increases in municipal taxes, rather than requiring each individual landlord to apply to the Board for the requisite increases. A similar order was applied to Toronto, Ont., in August, 1949. In the same month a new formula was evolved permitting rental appraisers, in increasing maximum rentals because of increase in municipal taxes, to compensate landlords for the portion of the tax increase which accrued between the beginning of the taxation year and the date upon which they could require the tenant to pay the increased rental.

Amendments were made to the provisions of the Board's orders granting to tenants security of tenure. In November, 1948, a landlord-owner was permitted to require that his tenant vacate on six months notice if the landlord needed the accommodation for his own residence, provided the landlord had owned the housing accommodation at Nov. 1, 1947. At the same time any landlord, no matter how long he had been the owner, who alleged that his inability to occupy his housing accommodation was causing him grievous hardship, was authorized to apply to a commissioner for exemption from security of tenure. In November, 1948, the same procedure of application to a commissioner for exemption from the provisions conferring security of tenure was extended to include any religious or educational institution or public hospital which required housing accommodation occupied by a tenant for the extension of its public service. In March, 1949, an owner of a house rented to a tenant who operated a rooming house therein and used no part for his own residence was granted the right of applying to a commissioner who could exempt from the security of tenure on assurance that the owner would leave the roomers undisturbed.

By orders of the Wartime Prices and Trade Board made Nov. 10, 1949, the maximum rental of rooms was increased 20 p.c. and the maximum rental of self-contained dwellings 18 p.c. if unheated by the landlord and 22 p.c. if heated by the

landlord. In the case of self-contained dwellings the increases were conditional upon the landlord offering to the tenant a term-certain lease of 12 months duration not to expire prior to Apr. 30, 1951. Any landlord who owned a self-contained dwelling prior to Nov. 1, 1949, could recover it from the tenant on six months notice if he needed the dwelling as his own residence, and any landlord of rooms could recover possession from the tenant upon six months notice without giving any reason for his action. A landlord and tenant of a self-contained dwelling could enter into a two-year term-certain lease, free of all control.

## Section 2.—Wholesale and Retail Prices

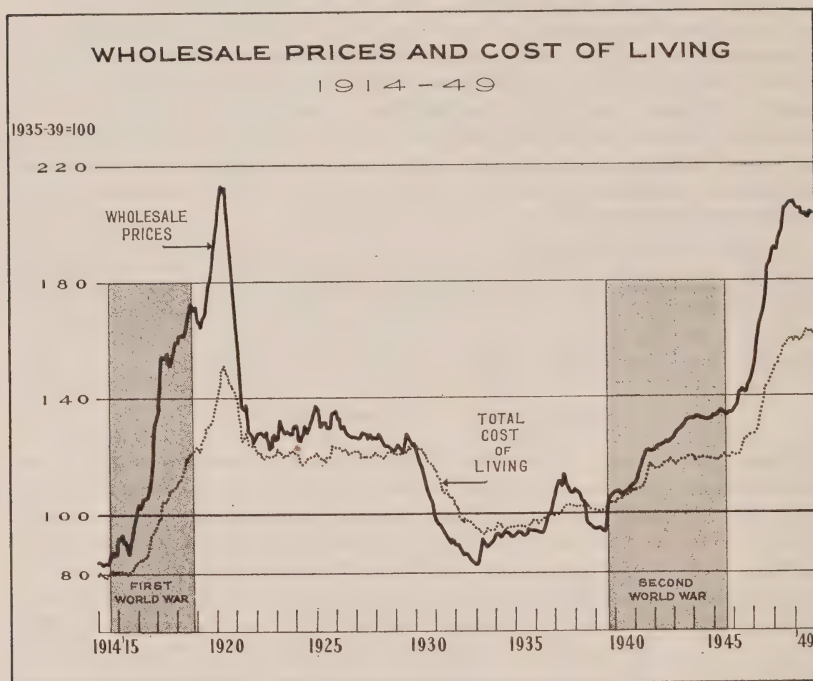
For purposes of statistical analysis, commodity prices are usually divided into two principal groups, wholesale prices and retail prices. The term 'wholesale' is not used literally, and primary producers', factory and jobbers' quotations, as well as actual wholesale prices, are often included in this group. Markets in which this type of price is quoted are usually well organized, and are frequently very sensitive and responsive to changing business and monetary conditions. Wholesale quotations are preferred, therefore, for sensitive index numbers of prices designed to reflect price reactions to economic factors.

Retail prices are important from a statistical point of view because they indicate changes in living costs and, along with measurements of income, show fluctuations in the economic well-being of the community. Retail prices, however, may be influenced by local conditions and are less sensitive than wholesale prices. There is ordinarily a lag of several months between retail and wholesale quotations.

### Subsection 1.—Wholesale Prices

**Historical Record of Prices.**—Wholesale price index numbers in Canada cover the period dating from Confederation in 1867. An intermittent decline characterized the first 30 years of this interval, followed by a gradual advance for a period of 16 years prior to the outbreak of war in 1914; from an average of 43·6 in 1897, the general wholesale index (1926=100) advanced without appreciable interruption to 64·4 in July, 1914. By the end of the War in November, 1918, this index had reached 132·8, and it continued upward to a post-war inflationary peak of 164·3 in May, 1920. The subsequent deflationary period lasted about two years, and between 1922 and 1929 price levels remained comparatively stable. Annual averages in this interval held between a high of 102·6 for 1925 and 95·6 for 1929. For the four years following 1929, depressionary influences were so severe that prices fell to the level of those of 1913. In February, 1933, the wholesale index touched an extreme low of 63·5 before turning upward again. Irregular recovery then continued until 1937, but the highest point reached, 87·6 in July, 1937, was substantially below the 1926 average. The collapse of the wheat market in 1938, along with fairly general depression in other markets, carried wholesale price levels just prior to the outbreak of war in 1939 down to about 11 points above the 1913 level. The August, 1939, index of 72·3 marked the extreme low of a two-year decline. The movement of prices prior to the outbreak of the Second World War was quite different, therefore, from that which preceded the First World War. The relatively low level of prices in August, 1939, probably influenced the sharper initial advance at the outbreak of war. However, during 1940, price levels steadied and showed no sign of a steep increase until 1941. By that time, great expansion in wartime production had made serious inroads into stocks of

nearly all basic commodities and, at the end of 1941, wheat remained the only important commodity for which stocks exceeded predictable requirements. The introduction of general price control in December, 1941, ended a year in which wholesale prices had advanced 11 p.c. as compared with about 3 p.c. in 1940. The effectiveness of control is indicated by the fact that percentage increases in wholesale prices amounted to only 3.7 and 5.7 for the years 1942 and 1943, respectively, while the December, 1944, index remained the same as the December, 1943, figure. The December, 1945, index of 103.9 was 11 p.c. above that for December, 1941, when price control became generally effective.



**Post-War Price Movements.**—The precipitous advance in United States general wholesale prices which began during the latter half of 1946 was of great concern to Canadian price-control authorities. This advance had been anticipated in July, 1946, when the Canadian dollar was returned to par with the United States dollar, thus reducing the Canadian dollar cost of imports from the United States. This provided a buffer of 10 p.c. only and the rise in United States prices was greater than that on a large majority of imported articles so that continuous pressure was felt, especially among individual items. The Canadian general wholesale price index rose from 103.6 to 112.0, an increase of over 8 p.c. in the 19 months between V-E Day in May, 1945, and December, 1946.

The Canadian price rise accelerated in 1947 as internal controls continued to be relaxed. The monthly general wholesale index advanced without interruption from 112.0 at December, 1946, to 143.5 at December, 1947, an increase of 28 p.c.



**Wholesale Prices, January, 1948-December, 1949.**—The price rise of 1947 carried through into 1948 although at a decreasing rate. During the 12 months from December, 1947, to December, 1948, the index rose 11 p.c. to reach 159.6. The sharp February, 1948, break in United States basic commodity markets was reflected in the Canadian wholesale index by a drop of only one-tenth of a point between February and March. The exceptionally sharp increase in the wholesale index between July and August reflected mainly the increase in the price of No. 1 Northern Manitoba wheat from \$1.58 to \$2.05 per bu. (basis, in store Fort William/Port Arthur or Vancouver).

The December wholesale index level of 159.6 marked a high, surpassed only by the inflationary peak of 1920. However, the months following December, 1948, were notably different from those following May, 1920. By January, 1921, the general wholesale index had dropped nearly 22 p.c. from the peak whereas, six months after December, 1948, the index had fallen only 2 p.c. The slight declines of January and February were largely the result of weaknesses in the prices of animal products, while the March-June decrease was almost entirely due to a sharp drop in prices of copper, lead and zinc. Little change occurred in the second half of 1949, the general wholesale index standing at 156.8 for December.

### 1.—Annual Index Numbers of Wholesale Price Groups, Significant Years, 1939-48, and Monthly Index Numbers, 1948 and 1949

(1926=100)

NOTE.—Figures for significant years 1913-39 will be found at p. 952 of the 1948-49 edition of the Year Book.

Year and Month	General Wholesale	Consumer Goods	Producers Goods	Raw and Partly Manufactured Goods	Fully and Chiefly Manufactured Goods	Canadian Farm Products <sup>1</sup>	Building and Construction Materials	Industrial Materials
1939.....	75.4	75.9	70.4	67.5	75.3	64.3	89.7	69.0
1940.....	82.9	83.4	78.7	75.3	81.5	67.6	95.6	79.0
1941.....	90.0	91.1	83.6	81.8	88.8	72.8	107.3	87.3
1942.....	95.6	95.6	88.3	90.1	91.0	85.0	115.2	94.2
1943.....	100.0	97.0	95.1	99.1	93.1	97.9	121.2	97.6
1944.....	102.5	97.4	99.9	104.0	93.6	107.1	127.3	99.8
1945.....	103.6	98.1	100.7	105.6	94.0	112.3	127.3	99.8
1946.....	108.7	101.1	105.7	109.5	98.8	118.1	134.8	103.6
1947.....	129.1	117.3	129.3	130.7	117.4	126.4	166.4	130.4
1948.....	153.4	140.8	153.9	156.2	140.3	149.7	195.7	155.2
1949.....	..	..	..	..	..	..	..	..
<b>1948</b>								
January.....	147.1	135.6	146.2	148.3	136.8	147.7	187.8	148.4
February.....	147.4	137.2	145.9	147.5	137.5	145.7	187.9	146.3
March.....	147.3	137.6	145.4	147.3	137.3	145.1	188.5	144.9
April.....	148.9	138.4	147.5	150.0	138.1	148.1	188.9	149.5
May.....	150.4	139.3	149.5	152.6	138.1	151.0	193.5	151.6
June.....	152.1	141.1	151.0	155.9	138.1	155.2	194.7	155.2
July.....	152.2	141.2	151.3	155.1	138.9	154.2	195.4	155.3
August.....	158.3	143.2	161.5	163.2	143.4	151.2	200.1	162.6
September.....	158.4	143.8	161.7	162.8	143.8	149.7	200.2	162.4
October.....	159.3	144.1	162.0	163.9	144.1	149.3	205.9	162.1
November.....	159.4	144.0	162.5	164.2	143.9	149.9	203.7	162.2
December.....	159.6	144.3	162.8	163.8	143.9	148.9	203.5	162.3
<b>1949<sup>2</sup></b>								
January.....	159.3	144.0	162.5	163.4	143.3	148.2	204.3	162.0
February.....	158.1	142.8	161.1	161.1	142.1	145.1	204.3	160.1
March.....	157.6	142.7	160.6	161.7	140.9	145.8	205.4	157.8
April.....	157.5	143.6	160.3	160.8	142.0	147.6	204.3	153.8
May.....	156.4	143.5	157.8	159.5	142.3	148.0	202.8	149.9
June.....	156.3	144.4	156.7	160.2	142.1	149.6	201.3	147.3
July.....	156.6	145.0	156.5	160.8	142.1	150.9	200.7	145.7
August.....	155.5	143.2	156.2	158.5	142.3	146.0	198.1	146.6
September.....	155.4	142.6	156.6	158.4	141.8	145.7	197.6	148.5
October.....	157.1	143.1	159.2	160.5	142.9	145.0	199.3	149.7
November.....	157.0	142.4	159.6	160.5	142.8	145.0	199.6	150.9
December.....	156.8	142.4	159.8	160.2	142.6	144.4	200.3	151.0

<sup>1</sup> Includes wheat participation payments authorized up to Mar. 31, 1949, and retroactive to August, 1945.

<sup>2</sup> 1949 data subject to revision.

**World Wholesale Price Indexes.**—Price changes within different countries have varied widely since the years before the War. Comparisons between Canadian wholesale price changes and those that have occurred in other countries are provided in Table 2 which lists wholesale price indexes at certain dates for a selected list of countries.

**2.—Index Numbers of Wholesale Prices in Canada and other Countries, 1939 and December 1945, 1947 and 1948**

(1937=100 except for: France, where 1938=100 and Mexico, where 1939=100. For India the base was changed after 1946 to September, 1938 - August, 1939=100)

(SOURCE: *The Monthly Bulletin of Statistics of the United Nations*)

Country	1939	Month of December		
		1945	1947	1948
Australia.....	100	139	159	182
<b>Canada.....</b>	<b>89</b>	<b>123</b>	<b>170</b>	<b>189</b>
Chile.....	93	201	315	368
Czechoslovakia.....	113	207	316	335
Denmark.....	99	171	203	221
Finland.....	98	498	828	905
France.....	105	469	1,217	1,971
India.....	95	233	314	384
Mexico (Mexico City).....	100	183	243	268
Netherlands.....	97	200	258	268
New Zealand.....	105	158	176	178
Norway.....	100	163	175	180
Peru (Lima).....	105	218	363	427
Portugal (Lisbon).....	98	230	227	242
Sweden.....	101	167	180	190
Switzerland.....	100	193	209	208
Union of South Africa.....	101	157	175	184
United Kingdom.....	95	156	187	203
United States.....	89	124	189	188

**Subsection 2.—Cost-of-Living Index**

**Purpose and Interpretation.**—The Dominion Bureau of Statistics cost-of-living index measures the influence of changes in retail prices of goods and services upon the cost of a representative urban wage-earner family budget.

It should be clearly understood that the index is a measurement of price change. Many people use the term 'living costs' to indicate the total cost of goods they buy. Used in this sense, living costs may include different things from year to year as well as different quantities of the same things. A cost-of-living index based upon this idea would reflect the value of total purchases made by everyone. It could be measured by the total consumer expenditure item as published in the Bureau's national income and expenditure estimates.\* The cost-of-living index is based upon a quite different idea. It measures changes in the cost of a family budget which includes the same amounts of the same commodities and services for considerable periods of time. It is essentially an index that measures changes in prices. Minor adjustments were necessary both during and after the War to take account of changing consumption patterns caused by imposition and removal of rationing, etc. At longer intervals a completely new survey of family budgets is undertaken. A survey of family income and expenditure was begun in October, 1948.

\* See National Accounts and Related Economic Statistics, Chapter X.

Each monthly figure is a percentage which compares the present dollar cost of the index budget with the cost of the same budget in a reference period. The Bureau's reference period now is the five-year interval 1935 to 1939, and the average cost of the index budget for this period is represented by 100. The comparable cost at Dec. 1, 1949, was 161.5 of its base-period cost. This figure of 161.5 becomes the cost-of-living index for Dec. 1, 1949.

**Cost-of-Living Index, January, 1948 - December, 1949.** — During 1948 retail prices of consumer goods and services continued to advance, and the official cost-of-living index rose 12.9 points or nearly 9 p.c. This substantial rise was considerably less than the 15 p.c. increase experienced during 1947. Actually, the index did not rise steadily for the full twelve months. The high for the year of 159.6 was reached in October and again in November. December saw a decline of 0.7 points, being the first decrease of any consequence since September, 1945.

### 3.—Annual Index Numbers of Living Costs, 1939-49, and Monthly Index Numbers, 1948 and 1949

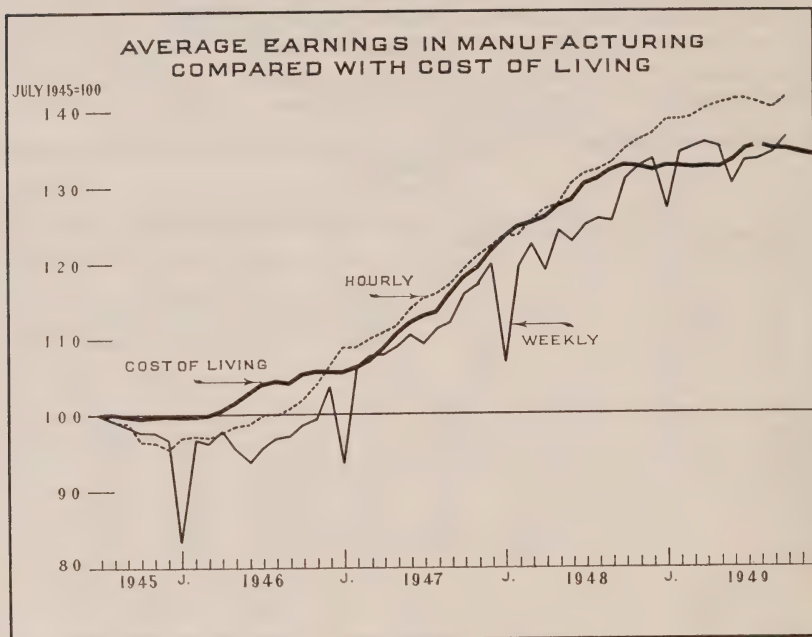
(1935-39=100)

NOTE.—Figures for the years 1913-34 will be found at p. 863 of the 1946 Year Book; those for 1935-38 will be found at pp. 954-955 of the 1948-49 edition.

Year and Month	Food Index	Rent Index	Fuel and Light Index	Clothing Index	Home Furnish- ings and Services Index	Miscel- laneous Index	Total Index
1939.....	100.6	103.8	101.2	100.7	101.4	101.4	101.5
1940.....	105.6	106.3	107.1	109.2	107.2	102.3	105.6
1941.....	116.1	109.4	110.3	116.1	113.8	105.1	111.7
1942.....	127.2	111.3	112.8	120.0	117.9	107.1	117.0
1943.....	130.7	111.5	112.9	120.5	118.0	108.0	118.4
1944.....	131.3	111.9	110.6	121.5	118.4	108.9	118.9
1945.....	133.0	112.1	107.0	122.1	119.0	109.4	119.5
1946.....	140.4	112.7	107.4	126.3	124.5	112.6	123.6
1947.....	159.5	116.7	115.9	143.9	141.6	117.0	135.5
1948.....	195.5	120.7	124.8	174.4	162.6	123.4	155.0
1949.....	203.0	123.0	131.1	183.1	167.6	128.8	160.8
<b>1948</b>							
January.....	152.2	119.9	120.4	161.2	158.4	122.6	148.3
February.....	156.1	119.9	120.1	165.1	159.9	122.8	150.1
March.....	185.9	119.9	121.0	169.9	161.2	122.8	150.8
April.....	186.8	119.9	121.3	172.9	161.9	122.9	151.6
May.....	191.2	120.9	122.7	173.6	161.9	122.9	153.3
June.....	193.9	120.9	124.3	174.8	162.0	122.7	154.3
July.....	201.3	120.9	124.5	175.4	162.8	123.1	156.9
August.....	202.6	120.9	127.7	175.9	161.4	123.4	157.5
September.....	203.9	121.0	128.5	179.9	164.2	124.4	158.9
October.....	205.4	121.0	128.8	181.0	165.1	124.4	159.6
November.....	204.7	121.0	129.0	181.5	166.0	124.6	159.6
December.....	202.0	121.7	129.1	181.5	166.2	124.6	158.9
<b>1949</b>							
January.....	202.2	121.7	130.0	181.9	167.0	126.6	159.6
February.....	200.4	121.7	130.8	181.8	167.8	128.1	159.5
March.....	199.1	121.7	131.0	182.7	167.9	128.1	159.2
April.....	198.5	122.4	131.0	183.2	168.0	128.4	159.3
May.....	199.5	122.4	129.1	183.3	168.1	128.4	159.5
June.....	202.9	122.4	128.7	183.3	167.7	128.4	160.5
July.....	207.2	123.4	129.1	183.3	167.5	128.5	162.1
August.....	209.2	123.4	129.5	183.2	167.4	128.9	162.8
September.....	207.0	123.9	130.1	183.5	167.4	128.9	162.3
October.....	205.0	123.9	134.1	184.1	167.2	130.2	162.2
November.....	203.3	123.9	135.1	183.7	167.4	130.2	161.7
December.....	201.9	125.0	135.2	183.7	167.1	130.5	161.5



However, the index did not continue to decline and a levelling-off process became evident during the first five months of 1949. This was similar to the pattern of wholesale prices described previously and likewise differed significantly from the sharp drop in retail prices that followed immediately after the peak of 1920. During June, July and August, 1949, seasonal strength was responsible for a slight advance in the index level while the reverse was the case for the last four months of the year.



**Regional Changes in Living Costs.**—In 1941, the Bureau established cost-of-living indexes for eight regional cities covering the period since August, 1939. These indexes, for the cities shown in Table 4, are patterned after the official cost-of-living series for Canada and include group indexes for food, fuel, rent, clothing, home furnishings and services, and miscellaneous items. The budget quantities employed for these calculations have been computed for each city from expenditure records of wage-earner families in the year ended Sept. 30, 1938. For the city records, August, 1939=100 is the base used instead of the five-year period 1935-39.

Regional movements in living costs since the outbreak of the Second World War have been closely comparable to movements in the index for Canada as a whole, which advanced 60 p.c. between August, 1939, and December, 1949. During this period increases in the eight city indexes ranged from 54 to 64 p.c.

## 4.—Index Numbers of Living Costs in Eight Cities, Alternate Months, 1945-49

(August, 1939=100)

NOTE.—Figures on this base for years 1940-44 will be found in corresponding tables in previous Year Books beginning with the 1942 edition.

Year and Month	Halifax	Saint John	Montreal	Toronto	Winnipeg	Saskatoon	Edmonton	Vancouver
<b>1945</b>								
February.....	118.8	118.6	120.9	116.7	116.0	119.4	116.6	118.4
April.....	118.7	118.8	121.0	116.9	116.2	119.6	116.8	118.6
June.....	119.1	119.4	121.9	118.3	117.2	119.9	117.3	120.0
August.....	121.1	120.9	123.6	118.6	118.0	121.2	118.4	120.4
October.....	119.4	119.5	122.2	117.9	116.8	120.3	117.9	119.0
December.....	119.6	119.7	122.6	118.3	117.0	120.7	118.4	119.7
<b>1946</b>								
February.....	119.3	119.7	122.2	118.2	117.1	120.6	117.8	119.2
April.....	120.3	120.6	123.1	119.3	118.4	121.7	119.1	120.4
June.....	122.4	122.5	125.8	121.9	120.9	125.3	121.2	123.7
August.....	125.0	124.6	128.3	123.5	122.1	128.1	123.2	124.7
October.....	125.0	124.9	129.5	124.9	122.7	127.2	123.9	125.9
December.....	125.1	125.1	129.1	125.0	123.2	128.2	124.8	126.6
<b>1947</b>								
February.....	125.6	125.9	129.6	126.0	124.0	129.0	124.9	127.7
April.....	127.9	128.5	132.7	128.8	126.1	131.7	127.5	130.1
June.....	131.0	132.1	137.7	133.3	129.7	136.2	131.3	134.3
August.....	135.1	134.9	138.9	135.0	132.0	138.6	134.0	135.6
October.....	138.9	139.5	145.5	140.0	137.4	144.0	137.7	141.3
December.....	141.8	143.9	148.6	144.0	140.8	147.5	139.9	146.0
<b>1948</b>								
February.....	144.3	147.7	152.8	147.8	144.4	151.9	145.1	148.7
April.....	146.2	149.3	154.9	148.6	146.3	153.7	146.5	151.0
June.....	149.1	152.3	158.4	151.6	148.6	157.2	149.0	154.3
August.....	151.7	156.0	160.6	154.3	150.6	159.5	153.5	159.5
October.....	152.2	156.4	163.1	155.4	152.8	161.8	153.9	161.3
December.....	150.8	155.5	161.5	154.5	152.2	161.6	153.6	160.8
<b>1949</b>								
February.....	152.1	156.2	162.4	154.7	153.8	162.0	154.4	160.8
April.....	152.3	155.9	161.9	154.8	153.8	161.8	154.3	160.5
June.....	153.4	157.2	164.6	156.1	155.4	162.5	155.8	162.0
August.....	157.2	159.7	166.1	158.5	157.9	163.8	158.3	164.2
October.....	155.0	159.0	165.4	157.9	156.2	162.4	156.8	162.8
December.....	153.6	158.0	164.1	157.4	155.7	162.7	156.4	161.9

**World Cost-of-Living Indexes.**—In order to place changes in Canadian retail prices in perspective with those which have occurred in other countries, Table 5 gives cost-of-living indexes for selected countries and dates. It will be noted immediately that increases in the cost-of-living have been a world wide phenomenon and that the Canadian increase has been moderate compared to that which has occurred in many other countries. The indexes shown in Table 5 measure price change only and should not be used to compare living costs from country to country.

### 5.—Index Numbers of Living Costs in Canada and Other Countries, 1939 and December 1945, 1947 and 1948

(1937=100)

(SOURCE: The Monthly Bulletin of Statistics of the United Nations)

Country	1939	Month of December—		
		1945	1947	1948
Australia.....	105	129	140	154
<b>Canada.....</b>	<b>100</b>	<b>119</b>	<b>144</b>	<b>157</b>
Chile (Santiago).....	106	252	403	471
Czechoslovakia (Prague).....	115	230	319	325
Denmark.....	104	162	167	170
Finland.....	105	419	748	828
France (cost of food in Paris).....	125	552	1,612	2,227
Iceland <sup>1</sup> (Reykjavik).....	103	285	328	326
India (Bombay).....	100	228	269	308
Mexico (Mexico City).....	116	268	353	377
Netherlands.....	102	177	202	214
New Zealand.....	107	123 <sup>2</sup>	133	135
Norway.....	105	161	163	162
Peru (Lima).....	100	190	311	353
Portugal <sup>3</sup> (Lisbon).....	101	197	208	213
Sweden.....	104	149	152	160
Switzerland.....	101	151	163	164
Union of South Africa.....	104	137	146	156
United Kingdom.....	103	132	104 <sup>4</sup>	109
United States.....	97	126	163	167

<sup>1</sup> Base: January–March, 1939=100.  
July, 1938–June, 1939=100.

<sup>2</sup> New wartime index linked to former series.  
<sup>4</sup> New series, base: June 17, 1947=100.

<sup>3</sup> Base:

### Section 3.—Index Numbers of Security Prices

Security prices have long been utilized in statistical measurements related to economic phenomena. They are generally sensitive to changing business conditions, although this valuable characteristic is sometimes overshadowed by the fact that their movements may be influenced greatly by speculative interest very remotely associated with underlying economic conditions. Thus, in 1928 and 1929, common-stock prices advanced far beyond levels indicated by business profits and prospects. Security-price trends have also been at variance with other business indexes during the First and Second World Wars.

**Investors Price Index Numbers of Common Stocks, January, 1948–December, 1949.**—After an early decline during the first three months of 1948, common-stock prices advanced to a high in June. Despite the loss of part of the mid-year gains over the latter half of the year, prices closed firm in December, well up from the 1948 low point and considerably above the average for 1947.

During the first six months of 1949, a general weakness in common-stock prices brought the index to 99.6 for June, as compared to 115.8 for December, 1948. While widespread, the declines were most severe in machinery and equipment, pulp and paper, beverage, and transportation issues. The decline in the index coincided with weakness in security prices in the United States where a moderate business recession occurred during the first half of 1949. However, stock price trends were reversed during the second half of 1949 and by December, the Investors' Index had risen to 117.9 for a net gain of 2.1 points over the year.



6.—Investors Index Numbers of Common Stocks, by Months, 1948 and 1949

(1935-39=100)

Year and Month	Grand Total	Types of Stocks										
		Banks, Total	Industrials								Building Materials	Industrial Mines
			Industrials, Total	Machinery and Equipment	Pulp and Paper	Milling	Oils	Textiles and Clothing	Food and Allied Products	Beverages		
1948												
January....	107.5	132.5	102.0	189.8	261.9	113.8	70.5	188.4	117.6	312.6	132.6	92.8
February....	102.2	129.7	96.0	179.7	242.7	105.5	65.8	185.3	111.8	294.1	122.5	88.1
March.....	101.5	127.8	95.8	185.9	243.7	104.9	65.2	186.6	109.6	289.7	121.4	88.1
April.....	109.1	127.7	103.7	209.1	256.5	109.5	70.1	197.3	115.2	312.6	132.0	96.5
May.....	116.5	128.4	110.9	228.0	274.1	113.1	76.6	215.7	114.0	331.8	142.4	102.4
June.....	120.3	128.5	114.9	247.7	279.8	111.7	79.5	220.2	115.9	324.3	144.1	108.0
July.....	116.3	127.8	111.0	234.9	275.9	111.2	75.1	221.9	115.5	315.3	139.5	105.1
August.....	113.6	127.9	108.1	234.8	272.2	108.3	72.8	214.8	113.2	300.3	137.1	102.6
September..	113.4	128.3	108.2	231.3	269.4	107.9	74.9	211.5	111.5	297.6	136.7	101.9
October.....	116.4	128.4	111.6	234.6	266.9	103.5	78.4	212.9	112.8	305.7	139.6	106.6
November...	117.8	132.6	113.5	233.5	267.6	100.3	79.6	217.8	116.6	315.4	140.9	108.8
December...	115.8	132.4	111.1	232.2	256.9	98.8	78.9	217.8	114.1	302.8	139.6	105.6
1949												
January....	114.3	132.6	109.3	234.1	257.1	96.4	75.9	214.3	115.2	294.5	143.0	103.8
February....	108.1	131.0	102.2	222.4	244.1	89.8	68.7	203.1	113.6	281.5	139.7	95.8
March.....	106.4	131.0	100.4	217.5	236.7	85.9	69.5	205.9	112.0	276.1	137.4	91.7
April.....	106.4	132.4	99.8	211.9	234.2	88.4	70.8	205.7	111.9	274.4	139.6	89.5
May.....	105.3	132.4	98.8	208.4	227.4	84.2	70.2	204.2	112.8	275.7	136.3	88.3
June.....	99.6	131.0	92.5	184.7	210.6	85.3	63.8	196.0	111.8	273.3	131.4	82.5
July.....	104.2	130.7	97.4	198.8	221.4	89.6	66.6	202.2	112.9	292.4	137.0	87.6
August.....	108.2	133.3	101.3	209.5	230.6	90.2	68.8	204.6	114.6	306.7	140.0	91.7
September..	109.6	135.2	102.2	213.1	240.1	93.0	68.9	204.8	116.0	312.5	143.0	91.4
October.....	114.3	139.8	107.9	221.4	259.0	95.8	75.4	206.4	122.0	329.6	151.4	94.3
November...	118.2	142.2	112.9	231.0	274.3	91.8	82.6	219.9	123.5	336.5	158.6	96.2
December...	117.9	140.6	112.5	231.5	279.4	88.5	82.4	229.9	121.5	345.9	163.2	92.6

Year and Month	Types of Stocks			
	Public Utilities			
	Public Utilities, Total	Transportation	Telephone and Telegraph	Power and Traction
1948				
January.....	112.9	155.5	107.4	101.4
February....	110.1	153.1	106.0	95.2
March.....	107.4	140.5	104.7	98.4
April.....	116.5	172.3	105.7	102.5
May.....	127.8	213.8	105.4	107.8
June.....	132.2	225.0	110.5	108.7
July.....	126.2	204.4	108.7	106.6
August.....	123.2	190.2	108.6	106.7
September..	121.2	181.3	110.1	105.7
October.....	123.2	180.5	112.2	108.8
November...	121.3	175.2	111.3	107.8
December...	120.2	175.0	109.3	106.9
1949				
January.....	119.2	175.8	104.0	108.2
February....	115.1	162.6	102.9	105.7
March.....	113.7	154.0	103.2	106.4
April.....	115.7	150.6	106.6	109.7
May.....	113.5	145.7	106.1	107.4
June.....	109.2	135.2	104.2	104.1
July.....	114.3	147.4	106.1	108.4
August.....	119.5	162.4	108.8	111.2
September..	122.7	172.5	110.1	112.8
October.....	121.9	171.3	109.9	111.7
November...	121.6	177.9	104.5	112.2
December...	122.5	183.8	103.8	112.0

**Preferred Stocks, January, 1948,-December, 1949.**—Although preferred stocks followed the same general pattern of fluctuations during the first half of 1948, as did common stocks, the subsequent decline from the June high wiped out most of the gains, so that the index closed about where it had stood in January. The 1948 behaviour constituted a continuation of the gradual decline in preferred stock prices begun in February, 1947. The downward movement continued into 1949, and by June the index had fallen to 136·3, the lowest point reached between that date and May, 1945. By December this index had risen to 150·7.

### 7.—Index Numbers of Preferred Stocks, by Months, 1933-49

(1935-39=100)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1933.....	59·8	59·8	57·1	57·1	65·9	70·6	74·7	74·4	73·6	72·0	71·3	72·6
1934.....	77·3	80·2	81·2	82·6	82·9	82·5	82·1	81·2	81·3	83·8	85·2	86·1
1935.....	88·7	89·0	85·9	83·5	82·5	82·5	84·0	85·5	83·5	83·8	87·5	89·0
1936.....	90·3	93·1	92·0	91·7	90·0	91·9	95·9	97·2	101·1	104·7	109·9	113·3
1937.....	119·7	121·1	123·8	124·4	120·9	119·8	119·9	122·4	109·8	99·2	98·9	97·7
1938.....	100·6	99·0	93·5	94·3	96·6	98·7	105·2	104·7	98·1	106·2	105·5	104·8
1939.....	102·5	101·8	101·2	95·2	95·3	98·8	100·1	97·7	100·5	107·4	108·7	110·1
1940.....	110·7	109·7	108·8	108·9	96·7	86·9	89·0	93·9	99·1	100·7	103·0	101·7
1941.....	101·4	97·6	98·7	97·9	96·3	96·8	98·5	100·0	103·2	102·2	102·6	100·7
1942.....	99·6	96·8	95·6	94·5	95·4	96·5	95·7	95·8	95·6	96·2	97·5	100·4
1943.....	102·7	105·5	106·4	108·2	110·1	113·3	117·3	117·8	118·0	118·2	115·3	115·8
1944.....	118·3	118·6	119·2	118·7	118·5	122·2	124·7	125·9	126·3	126·7	128·8	129·8
1945.....	131·8	132·1	130·9	130·3	132·4	137·2	138·0	137·8	139·4	142·5	145·0	146·6
1946.....	152·1	154·1	154·5	157·8	159·7	161·6	157·5	157·9	151·4	153·6	154·7	153·5
1947.....	157·5	158·5	156·0	153·1	154·3	155·8	155·4	153·5	153·6	152·0	150·2	148·1
1948.....	144·5	141·0	138·9	144·2	147·0	148·2	147·5	146·4	144·8	143·7	144·6	144·6
1949.....	144·7	144·0	142·8	140·9	139·9	136·3	138·6	140·4	141·8	145·8	150·0	150·7

**Mining Stocks, January, 1948,-December, 1949.**—Although there was little net change in the total index during 1948, the two component series, gold and base metals, followed divergent trends. Gold stocks declined from 74·8 in December, 1947, to 60·3 in July, 1948, and ended the year at 63·0, a decline of 15·8 p.c. The base metals index advanced 17·1 p.c. from 108·5 in December, 1947, to 127·1 in December, 1948, in conjunction with advancing world prices for base metals.

During January-June, 1949, the indexes reversed their direction. Gold stocks strengthened somewhat while base metals dropped from 128·6 for January to 102·3 for June, as prices for copper, lead and zinc reversed sharply. Moving in line with other security prices these indexes rose moderately in the second half of 1949.

## 8.—Weighted Index Numbers of Prices of Mining Stocks, by Months, 1946-49

(1935-39=100)

Year and Month	Gold	Base Metal	Total	Year and Month	Gold	Base Metal	Total
<b>1946</b>				<b>1948</b>			
January.....	107.2	127.5	114.9	January.....	71.6	110.0	84.8
February.....	111.6	124.8	116.9	February.....	71.8	104.9	83.3
March.....	101.3	119.9	108.4	March.....	71.1	102.9	82.2
April.....	99.8	127.9	110.0	April.....	66.2	111.9	81.6
May.....	94.2	130.4	107.0	May.....	66.9	118.2	84.1
June.....	92.0	125.7	104.0	June.....	62.7	118.0	81.1
July.....	81.7	114.9	93.4	July.....	60.3	115.8	78.8
August.....	77.6	112.1	89.7	August.....	60.7	114.8	78.7
September.....	71.1	101.0	81.6	September.....	63.0	115.1	80.4
October.....	70.1	98.9	80.3	October.....	62.2	123.4	82.5
November.....	73.1	101.9	83.3	November.....	60.5	127.9	82.7
December.....	70.9	107.6	83.7	December.....	63.0	127.1	84.2
<b>1947</b>				<b>1949</b>			
January.....	74.1	109.8	86.6	January.....	69.1	128.6	88.9
February.....	75.7	113.3	88.8	February.....	68.8	119.5	85.9
March.....	73.8	107.8	85.7	March.....	67.1	113.7	82.8
April.....	73.0	104.6	84.1	April.....	72.3	112.1	86.0
May.....	72.3	102.7	83.0	May.....	69.4	107.5	82.5
June.....	76.6	105.5	86.9	June.....	66.5	102.3	78.9
July.....	75.6	104.1	85.8	July.....	70.6	112.3	84.9
August.....	77.3	104.1	87.0	August.....	75.3	116.8	89.6
September.....	80.1	101.2	88.0	September.....	75.0	118.8	89.9
October.....	78.9	102.7	87.6	October.....	74.9	124.1	91.5
November.....	79.5	108.4	89.9	November.....	77.3	130.1	95.2
December.....	74.8	108.5	86.6	December.....	74.2	128.4	92.4

## Section 4.—Index Numbers of Bond Yields

The exceptional requirements of the war years of 1914-18 turned the federal authorities to the domestic market, a field that had hitherto served mainly the needs of the provinces and municipalities. Historical records of long-term bond yields in the domestic market prior to 1914 are obtainable, therefore, from provincial and municipal sources only. A record of Ontario issues from 1900 to date is available and was utilized for the first long-term bond-yield index constructed by the Dominion Bureau of Statistics. The relatively long period for which the record has been preserved makes this series of considerable value.

Since the First World War, however, the growing importance of federal financing in the domestic market has made it advisable to supplement the Ontario series with the federal index of long-term bond yields shown in Table 9. This series (1935-39=100) has been computed from January, 1937, on the basis of yields computed from a 15-year, 3 p.c. theoretical issue. Quotations for the theoretical yields are computed by the Bank of Canada.

**Bond Yields, January, 1948,-December, 1949.**—In January, 1948, standing Government support to the market for Government bonds was withdrawn, and the index of Dominion of Canada long-term bond yields rose from 84.8 at December, 1947, to 92.1 at January, 1948. Yields fluctuated narrowly during the following

34311—63½



18 months. Evidence of underlying strength for Government obligations continued to be felt as indicated by decreases in the yield index in the latter half of 1949.

**9.—Index Numbers of Dominion of Canada Long-Term Bond Yields, by Months, 1941-49**

(1935-39=100)

Month	1941	1942	1943	1944	1945	1946	1947	1948	1949
January.....	100.6	99.4	98.8	97.3	96.7	90.0	84.9	92.1	95.4
February.....	100.8	99.3	98.5	97.3	96.6	85.9	84.7	92.1	95.2
March.....	100.5	99.6	97.6	97.3	96.3	83.8	84.6	96.7	94.7
April.....	100.6	99.6	97.3	97.3	96.0	84.3	84.8	96.5	94.4
May.....	101.1	99.5	97.3	97.2	96.0	85.1	84.6	95.3	94.4
June.....	101.9	98.8	97.3	97.0	95.6	84.9	84.3	95.4	94.4
July.....	101.5	98.7	97.3	97.0	94.6	85.1	83.8	95.6	93.8
August.....	101.2	99.0	97.3	97.0	94.4	85.0	83.9	96.2	92.7
September.....	100.3	99.4	97.3	97.0	94.6	84.9	84.0	96.1	91.8
October.....	100.2	99.6	97.3	97.0	94.4	85.0	84.2	95.3	89.1
November.....	99.1	99.6	97.3	97.0	93.9	85.0	84.4	95.7	89.2
December.....	99.3	99.4	97.3	96.9	92.2	85.0	84.8	95.5	90.3

# CHAPTER XXIV.—PUBLIC FINANCE

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

## PART I.—FEDERAL, PROVINCIAL AND MUNICIPAL FINANCE

### Section 1.—Combined Statistics of Public Finance for all Governments\*

The purpose of this Section is to present combined statistics of public finance for all governments of Canada—federal, provincial and municipal. Information in greater detail is given in the Sections that follow.

**Combined Debt.**—The municipal debt figures for 1946 in Tables 1 and 2 include estimated figures for Quebec, as municipal statistics for 1946 for that Province are not available. It will be noted that the total combined direct debt for 1946 shows a reduction of over \$27,000,000 as compared with the previous year. This is due mainly to the fact that the Federal Government was able to avoid borrowing in 1946 to finance current operations and reduced its funded debt by \$127,000,000. Increases in total indirect debt, however, for both Federal and Provincial Governments resulted in a net general increase in the combined direct and indirect debt of approximately \$47,000,000.

**Combined Revenues and Expenditures.**—Tables 3 and 4 present over-all details of federal, provincial and municipal finance by combining ordinary and capital account revenues and expenditures for each level of government. Since all expenditure—ordinary or capital—is included, amounts provided for debt retirement have been excluded to avoid duplication. The revenues and expenditures presented in these tables are on a 'net' basis since the following revenues have been treated as offsets to their corresponding expenditures: shared-cost contributions of other governments, institutional revenue and certain other sales of commodities and services, and interest revenue exclusive of sinking-fund earnings. Certain

\* Revised in the Public Finance Division, Dominion Bureau of Statistics.

inter-governmental transfers such as the payments of the Federal Government to the provinces for the vacation of tax fields are neither conditional grants nor payments for services and cannot, therefore, be offset against any specific expenditure. These are set out separately in Tables 3 and 4 so as to show grand totals of revenue and expenditure for each level of government as well as totals excluding inter-governmental transfers.

Discrepancies between the amounts shown in Tables 3 and 4 as inter-governmental transfers are due to variations in the fiscal year ends and accounting practices of governments.

### 1.—Composition of Total Debt of all Governments, 1946, with Totals for 1945

NOTE.—These figures are as at the governmental fiscal year ends nearest Dec. 31, 1946.

Item	Federal	Provincial	Municipal <sup>1</sup>	Total	Deduct Inter-governmental Debt	Combined Governmental Debt
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>Direct Debt—</b>						
Funded debt.....	14,696,088	1,672,225	944,587	17,312,900	9,114	17,303,786
Less: sinking funds.....	—	223,330	152,030	375,360	1	375,359
Net funded debt.....	14,696,088	1,448,895	792,557	16,937,540	9,113	16,928,427
Treasury bills.....	1,280,000 <sup>2</sup>	210,543	6,749	1,497,292	181,050	1,316,242
Savings deposits.....	35,765	64,343	—	100,108	—	100,108
Temporary loans.....	—	3,111	27,013	30,124	—	30,124
Other direct liabilities....	2,036,807 <sup>3</sup>	90,632	110,516	2,237,955	39,482	2,198,473
<b>Totals, Direct Debt (less sinking funds).....</b>	<b>18,048,660</b>	<b>1,817,524</b>	<b>936,835</b>	<b>20,803,019</b>	<b>229,645</b>	<b>20,573,374</b>
<b>Indirect Debt—</b>						
Guaranteed bonds.....	610,557 <sup>4</sup>	178,534	55,269	844,360	10,258	834,102
Less: sinking funds.....	4,222 <sup>5</sup>	2,975	9,275	16,472	2,289	14,183
Net guaranteed bonds....	606,335	175,559	45,994	827,888	7,969	819,919
Loans under the Municipal Improvement Assistance Act, 1938.....	—	5,215	—	5,215	5,215	—
Guaranteed bank loans and other indirect liabilities.....	14,723 <sup>6</sup>	39,685	—	54,408	8,526	45,882
<b>Totals, Indirect Debt (less sinking funds)...</b>	<b>621,058</b>	<b>220,459</b>	<b>45,994</b>	<b>887,511</b>	<b>21,710</b>	<b>865,801</b>
<b>Grand Totals, 1946.....</b>	<b>18,669,718</b>	<b>2,037,983</b>	<b>982,829</b>	<b>21,690,530</b>	<b>251,355</b>	<b>21,439,175</b>
<b>1945.....</b>	<b>18,682,169</b>	<b>1,979,884</b>	<b>992,128</b>	<b>21,654,181</b>	<b>261,855</b>	<b>21,392,326</b>

<sup>1</sup> Includes estimates for Quebec as statistics for 1946 are not available.

<sup>2</sup> Includes \$280,000,000

deposit certificates and \$550,000,000 six-month notes.

<sup>3</sup> Excludes provincial debt accounts.

<sup>4</sup> Includes both guaranteed and unguaranteed issues of the Canadian National Railways and National Harbours Boards at Mar. 31 to correspond with fiscal year end of the Federal Government.

<sup>5</sup> Includes deposits in lieu of mortgaged property sold, held by the Canadian National Railways.

<sup>6</sup> Excludes contingent liability in respect of Federal Government guarantee of deposits maintained by chartered banks in the Bank of Canada, miscellaneous guarantees the amounts of which were not finally determined or were indeterminate at the close of the fiscal year, and contingent liabilities of the Canadian National Railways.



## 2.—Combined Debt of all Governments, 1943-46

Item	1943	1944	1945	1946
	\$'000	\$'000	\$'000	\$'000
<b>Direct Debt—</b>				
Funded debt.....	12,287,936	14,556,235	17,420,778	17,303,786
Less: sinking funds.....	436,868	402,038	363,425	375,359
Net funded debt.....	11,851,068	14,154,197	17,057,353	16,928,427
Treasury bills.....	1,212,096	1,692,099	1,478,075	1,316,242
Savings deposits.....	69,847	79,240	83,985	100,108
Temporary loans.....	65,194	80,848	51,848	30,124
Other direct liabilities.....	1,228,080	1,686,283	1,929,497	2,198,473
<b>Totals, Direct Debt (less sinking funds).....</b>	<b>14,426,285</b>	<b>17,642,667</b>	<b>20,600,758</b>	<b>20,573,374</b>
<b>Indirect Debt—</b>				
Guaranteed bonds.....	948,893	851,682	765,969	834,102
Less: sinking funds.....	16,892	18,124	16,113	14,183
Net guaranteed bonds.....	932,001	833,558	749,856	819,919
Guaranteed bank loans and other indirect liabilities.....	75,169	114,976	41,712	45,882
<b>Totals, Indirect Debt (less sinking funds).....</b>	<b>1,007,170</b>	<b>948,534</b>	<b>791,568</b>	<b>865,801</b>
<b>Grand Totals.....</b>	<b>15,433,455</b>	<b>18,591,201</b>	<b>21,392,326</b>	<b>21,439,175</b>

## 3.—Combined Revenues of all Governments, 1946

NOTE.—Figures as at governmental fiscal year ends nearest Dec. 31, 1946. See text pp. 997-998 re inter-governmental transfers.

Item	Federal	Provincial	Municipal	Total
	\$'000	\$'000	\$'000	\$'000
<b>Taxes—</b>				
Corporation.....	690,306	689	—	690,995
Customs duties and import taxes.....	239,568	—	—	239,568
Gasoline.....	36,220	73,290	—	109,510
General sales.....	298,228	25,041	11,430	334,699
Income—persons.....	670,530	249	—	670,779
Liquor.....	97,716	122,974	—	220,690
Succession duties.....	23,576	34,066	—	57,642
Real and personal property.....	—	5,274	274,717	279,991
Tobacco.....	183,984	6,285	—	190,269
Withholding tax.....	30,136	—	—	30,136
Other taxes.....	157,397	14,131	29,418	200,946
<b>Totals, Taxes.....</b>	<b>2,427,661</b>	<b>281,999</b>	<b>315,565</b>	<b>3,025,225</b>
<b>Licences, Permits and Fees—</b>				
Motor-vehicle.....	—	38,613	—	38,613
Other.....	5,751	14,057	9,302	29,110
<b>Totals, Licences, etc.....</b>	<b>5,751</b>	<b>52,670</b>	<b>9,302</b>	<b>67,723</b>
<b>Public domain.....</b>	<b>3,415</b>	<b>51,335</b>	<b>—</b>	<b>54,750</b>
Municipal public utility contributions.....	—	—	16,345	16,345
Post Office (net).....	9,076	—	—	9,076
Bank of Canada profits.....	21,011	—	—	21,011
Bullion and coinage.....	2,098	—	—	2,098
Miscellaneous revenue.....	269,503 <sup>2</sup>	11,254	34,265	315,022
<b>Totals, Revenue (excluding inter-governmental transfers).....</b>	<b>2,738,515</b>	<b>397,258</b>	<b>375,477</b>	<b>3,511,250</b>

## 3.—Combined Revenues of all Governments, 1946—concluded

Item	Federal	Provincial	Municipal	Total
	\$'000	\$'000	\$'000	\$'000
Inter-Governmental Transfers—				
Federal subsidies to provinces.....	—	14,323	—	14,323
Provincial subsidies to municipalities.....	—	—	3,225	3,225
Vacation of tax fields <sup>1</sup> .....	—	80,461 <sup>4</sup>	3,928	84,389
Gasoline tax guarantee <sup>1</sup> .....	—	84	—	84
Nova Scotia highway tax.....	—	448	—	448
Municipal Commissioner's levy (Manitoba).....	—	909	—	909
Interest on Common School Fund and School Lands Fund Debentures.....	—	1,527	—	1,527
Totals, Inter-Governmental Transfers.....	—	97,752	7,153	104,905
<b>Grand Totals.....</b>	<b>2,738,515</b>	<b>495,010</b>	<b>382,630</b>	<b>3,616,155</b>

<sup>1</sup> Includes provincial profits from liquor control.  
over expenditure re expansion of industry.  
Acts.

<sup>2</sup> Includes \$242,254,000, being excess of refunds

<sup>3</sup> As per Dominion-Provincial Taxation Agreement

<sup>4</sup> Includes \$1,747,000, adjustment for Alberta under departmental option plan.

## 4.—Combined Expenditures of all Governments, 1946

NOTE.—Figures as at governmental fiscal year ends nearest Dec. 31, 1946. See text on pp. 997-998 re inter-governmental transfers.

Item	Federal	Provincial	Municipal	Total
	\$'000	\$'000	\$'000	\$'000
Public Welfare—				
Health and hospital care.....	2,956	53,361	21,218	77,535
Labour and unemployment insurance.....	42,769	2,439	—	45,208
Relief.....	5	4,899	3,057	7,961
Old age and blind pensions.....	45,496	19,733	300	65,529
Family allowances.....	246,837	—	—	246,837
Other.....	7,569	19,899	35,160	62,628
Totals, Public Welfare.....	345,632	100,331	59,735	505,698
Education.....	31,972	91,461	118,190	241,623
Transportation.....	38,065	137,019	66,861	241,945
Agriculture.....	79,215	15,336	—	94,551
Public domain.....	15,985	29,832	—	45,817
National defence.....	365,938	—	—	365,938
Veterans pensions and aftercare.....	584,655	—	—	584,655
Expansion of industry.....	177,480	—	—	177,480
Price control and rationing.....	436,519	51,595	31,803	519,917
Debt charges, net (excluding retirements) <sup>2</sup> .....	154,213	51,160	114,069	319,442
Other expenditures.....	—	—	—	—
Totals, Expenditure (excluding inter-governmental transfers).....	2,229,674	476,734	390,658	3,097,066
Inter-Governmental Transfers—				
Federal subsidies to provinces.....	14,383	—	—	14,383
Provincial subsidies to municipalities.....	—	3,331	—	3,331
Vacation of tax fields <sup>1</sup> .....	94,880	—	—	94,880
Nova Scotia highway tax.....	—	—	438	438
Municipal Commissioner's Levy (Manitoba).....	—	—	904	904
Interest on Common School Fund and School Lands Fund Debentures.....	1,466	—	—	1,466
Totals, Inter-Governmental Transfers.....	110,229	3,331	1,342	114,902
<b>Grand Totals.....</b>	<b>2,339,903</b>	<b>480,065</b>	<b>392,000</b>	<b>3,211,968</b>

<sup>1</sup> Refunds in the fiscal year 1946-47 exceeded expenditures. (See Table 3, footnote 2.)

<sup>2</sup> Excludes interest on common school fund and school lands fund debentures shown below under inter-governmental transfers.

<sup>3</sup> As per Dominion-Provincial Taxation Agreement Acts.

### 5.—Combined Revenues of all Governments, exclusive of Inter-Governmental Transfers, 1943-46

NOTE.—Figures as at governmental fiscal year ends nearest Dec. 31.

Item	1943	1944	1945	1946
	\$'000	\$'000	\$'000	\$'000
<b>Taxes—</b>				
Corporation.....	747,988	626,004	653,602	690,995
Customs duties and import taxes.....	288,056	214,502	171,613	239,568
Gasoline.....	70,502	76,753	87,912	109,510
General sales.....	330,550	235,227	242,119	334,699
Income—persons.....	699,537	673,345	686,935	670,779
Liquor.....	129,460	141,489	190,640	220,690
Succession duties.....	39,411	40,734	46,663	57,642
Real and personal property.....	266,293	271,999	269,374	279,991
Tobacco.....	144,677	156,604	178,707	190,269
Withholding tax.....	26,943	28,599	28,310	30,136
Other taxes.....	159,832	170,344	173,723	200,946
<b>Totals, Taxes.....</b>	<b>2,903,249</b>	<b>2,635,600</b>	<b>2,729,598</b>	<b>3,025,225</b>
<b>Licences, Permits and Fees—</b>				
Motor-vehicle.....	30,473	30,964	31,804	38,613
Other.....	22,251	23,717	25,303	29,110
<b>Totals, Licences, etc.....</b>	<b>52,724</b>	<b>54,681</b>	<b>57,107</b>	<b>67,723</b>
<b>Public domain.....</b>	<b>34,147</b>	<b>36,279</b>	<b>42,330</b>	<b>54,750</b>
Canadian National Railway surplus.....	35,639	23,027	24,756	—
Municipal public utility contributions.....	14,138	17,043	17,530	16,345
Post Office (net).....	12,308	10,669 <sup>r</sup>	10,973 <sup>r</sup>	9,076
Bank of Canada profits.....	14,118	18,079 <sup>r</sup>	22,542	21,011
Bullion and coinage.....	8,732	4,586 <sup>r</sup>	4,954 <sup>r</sup>	2,098
Miscellaneous revenue.....	38,650	215,900 <sup>r</sup>	454,105 <sup>r</sup>	315,022
<b>Totals, Revenue (excluding Inter-governmental transfers).....</b>	<b>3,113,755</b>	<b>3,015,864</b>	<b>3,363,895<sup>r</sup></b>	<b>3,511,250</b>

### 6.—Combined Expenditures of all Governments, exclusive of Inter-Governmental Transfers, 1943-46

NOTE.—Figures as at governmental fiscal year ends nearest Dec. 31.

Item	1943	1944	1945 <sup>r</sup>	1946
	\$'000	\$'000	\$'000	\$'000
<b>Public Welfare—</b>				
Health and hospital care.....	51,856	54,960	62,543	77,535
Labour and unemployment insurance.....	31,458	34,856	35,184	45,208
Relief.....	6,362	6,240	6,543	7,961
Old age pensions and pensions for blind.....	47,551	57,060	61,843	65,529
Family allowances.....	—	—	174,426	246,837
Other.....	39,725	46,653	48,837	62,628
<b>Totals, Public Welfare.....</b>	<b>176,952</b>	<b>199,769</b>	<b>389,376</b>	<b>505,698</b>
<b>Education.....</b>	<b>150,893</b>	<b>170,638</b>	<b>181,268</b>	<b>241,623</b>
Transportation.....	292,702	282,699	135,477	241,945
Agriculture.....	91,150	89,537	83,743	94,551
Public domain.....	27,504	32,095	36,532	45,817
National defence.....	2,621,501	2,885,812	2,263,674	365,938
Veterans pensions and aftercare.....	65,503	109,660	395,222	584,655
Mutual aid.....	921,401	860,465	939,587	—
Expansion of industry.....	472,807	—	—	—
Price control and rationing.....	151,322	192,006	183,311	177,480
Debt charges, net (excluding retirements).....	321,754	406,330	490,113	519,917
Other expenditures.....	215,562	230,394	259,445	319,442
<b>Totals, Expenditures (excluding Inter-governmental transfers).....</b>	<b>5,509,051</b>	<b>5,459,405</b>	<b>5,357,748</b>	<b>3,097,066</b>



## Section 2.—Federal Public Finance\*

A sketch of public finance, from the French regime to the outbreak of the First World War, appears at pp. 742-743 of the 1941 Year Book, while detailed sketches *re* tax changes from 1914 to 1938 will be found in issues of the Year Book beginning with the 1926 edition. An outline of the financing of Canada's war effort, including the more important changes in taxation during the war years from 1939 to 1945 is given at pp. 918-923 of the 1945 Year Book. Tax changes included in the 1945-46 and 1946-47 Budgets are given at pp. 883-884 of the 1946 edition, those in the 1947-48 Budget at pp. 952-953 of the 1947 edition, and those in the 1948-49 Budget at p. 964 of the 1948-49 edition.

**The 1949-50 Budget.**—The Budget for the fiscal year ending Mar. 31, 1950, was presented to Parliament on Mar. 22, 1949.† The forecast of revenue (after the tax changes outlined below) was \$2,477,500,000 and the forecast of expenditure was \$2,390,000,000. The estimated surplus was accordingly \$87,500,000. These forecasts compared with the 1948-49 actual revenues of \$2,771,395,075, expenditures of \$2,175,892,334, and surplus of \$595,502,741. The most significant feature of the Budget was the substantial abatement of personal income and excise taxes. The revenue loss from tax changes is shown in the following paragraphs.

The principal features of the tax changes were:—

**Personal Income Tax.**—Exemptions were raised for persons with single status from \$750 to \$1,000, for persons with married status from \$1,500 to \$2,000, for children eligible for family allowance from \$100 to \$150, for other dependants from \$300 to \$400. The rates of the graduated rate schedule were substantially lowered. These changes were expected to take approximately 750,000 former taxpayers off the tax rolls and assure that of the remaining taxpayers approximately 75 p.c. would pay tax at a rate of only 15 p.c. on taxable income.

**Corporation Income Tax.**—The rate of tax on the first \$10,000 of income was reduced from 30 p.c. to 10 p.c. and the rate on income over \$10,000 increased from 30 p.c. to 33 p.c. This change assured that small corporations would pay only 10 p.c. tax and that no corporation would pay more tax than under the previous rates unless its income exceeded approximately \$77,000. The carry-forward of losses was extended from three years to five years. The regulations on depreciation were changed to recognize obsolescence.

**Tax Credit for Dividends.**—Provision was made for the allowance of a credit of 10 p.c. of the amount of dividends received from common shares of Canadian taxpaying corporations against the personal income tax of a shareholder. This change was intended to remove substantially all the double taxation of corporation earnings for small corporations with income not exceeding \$10,000, and to make the combined incidence of corporation and individual income tax (taking account of the 10 p.c. credit) the same as previously for large corporations that distributed approximately one-half of their profits.

All of the above changes became effective on Jan. 1, 1949.

**Excise Taxes.**—The excise tax structure was greatly simplified by repealing some taxes on commodities and by imposing a straight *ad valorem* tax of 10 p.c. (at the manufacturer's level) on other commodities previously taxed at various rates.

\* Revised, except as otherwise indicated, under the direction of Dr. W. C. Clark, C.M.G., Deputy Minister, Department of Finance, Ottawa.

† Copies of the 1949-50 Budget may be obtained on application from the Department of Finance, Ottawa.

These excise tax changes in the 1949-50 Budget, and the yearly amount of revenue reduction involved, were as follows:—

(a) Excise taxes repealed on the following items:—

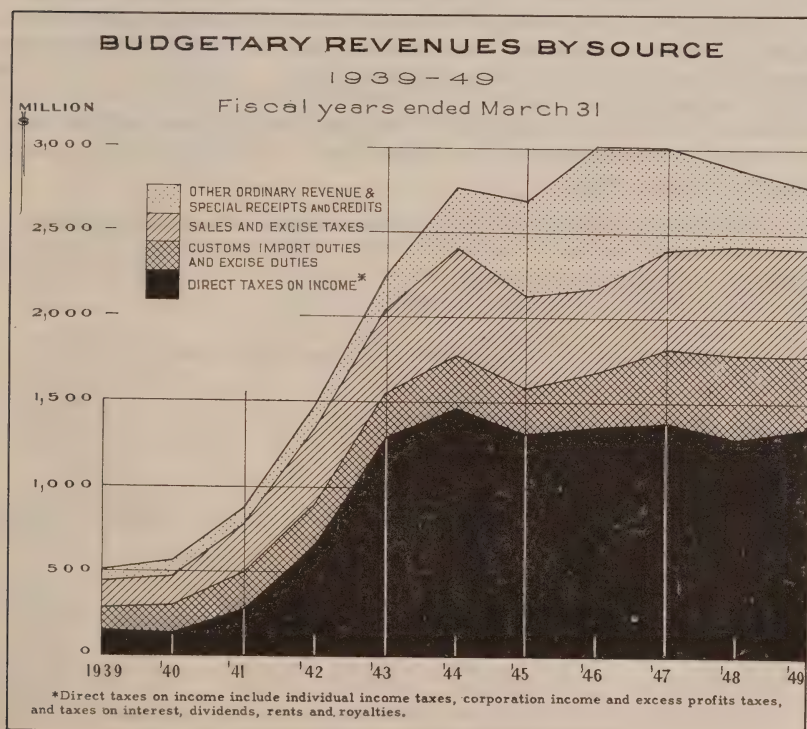
Soft drinks (previously 25 p.c. plus 1 cent per bottle).....	\$28,000,000
Candy (previously 30 p.c.).....	19,000,000
Chewing gum (previously 30 p.c.).....	2,000,000
Transportation tickets (previously 15 p.c.).....	20,500,000
Berths and parlour car seats (previously various rates).....	1,500,000
Long distance calls, extension telephones, telegrams and cables (previously various rates).....	7,500,000
Transportation buses (previously 5 p.c.).....	150,000
Carbonic acid gas (previously 50 cents per lb.).....	350,000
<b>TOTAL.....</b>	<b>\$79,000,000</b>

(b) Excise taxes reduced to 10 p.c. at manufacturers' level on the following items:—

Retail purchase tax on jewellery, etc. (previously 25 p.c. retail).....	\$ 8,000,000
Cosmetics and toilet preparations (previously 25 p.c.).....	4,000,000
Luggage, handbags, etc. (previously 35 p.c.).....	4,000,000
Matches (previously various rates).....	2,000,000
Smokers' supplies, pipes, ashtrays, etc. (previously 35 p.c.)...	600,000
Pens and pencils, desk sets, etc. (previously 35 p.c.).....	1,000,000
Cigarette lighters (previously 25 p.c.).....	250,000
<b>TOTAL.....</b>	<b>\$19,850,000</b>

(c) Tires and tubes (previously taxed at 5 cents per lb. converted to 10 p.c. *ad valorem* tax with no loss of revenue).

These changes became effective at midnight Mar. 22, 1949.



The following statement shows the net revenue loss from all tax changes:—

Item	Full Fiscal Year	Effect in Fiscal Year 1949-50
	\$	\$
Personal Income Tax—		
Increased exemptions and reduced rates..	-270,000,000	-235,000,000
Credit of 10 p.c. for dividends.....	-12,000,000	-9,000,000
Corporate Income Tax—		
Net increase in revenue from rate changes.	+12,000,000	+8,000,000
Excise taxes repealed.....	-79,000,000	-69,130,000
Excise taxes reduced to 10 p.c.....	-19,850,000	-17,370,000
NET REVENUE CHANGE.....	-368,850,000	-322,500,000

### Subsection 1.—Balance Sheets of the Federal Government

Table 7 gives the balance sheets of the Federal Government for 1945-49. The items on the assets side have been changed somewhat from the arrangement in former years but the revisions have been carried back to 1945, so that all years shown in the table are comparable. Figures in earlier Year Books are not on a basis comparable to those in the present Table 7. On the asset side, accounts classified as *active* assets are shown; these represent cash or investments that are interest-producing or have a readily realizable cash value. On the liability side, such liabilities as have been ascertained and brought into the accounts are given. No liability is shown for interest accrued but not due, nor for current obligations incurred for supplies or services but not paid for at the end of the fiscal year. Indirect liabilities under guarantees are not reflected in the Balance Sheets, but are set out in a special schedule. (See p. 1028.)

The excess of liabilities over active assets, designated the *net debt*, is analysed in a statement appended to the Balance Sheet, and is apportioned to non-active assets, which include capital expenditures and non-productive investments, and to accumulated deficits in Consolidated Deficit Account.

### 7.—Balance Sheets of the Federal Government as at Mar. 31, 1945-49

Assets	1945	1946	1947	1948	1949
	\$	\$	\$	\$	\$
<b>Active Assets—</b>					
Cash and Other Current Assets—					
In current deposits.....	154,974,071	805,969,427	482,191,674	34,522,862	87,887,659
In special deposits.....	2,792,498	2,642,002	2,354,151	3,518,896	2,301,582
In blocked currency.....	—	—	—	—	482,048
Other Liquid Assets—					
Foreign Exchange Control Board—					
Cash and securities.....	850,000,000	1,550,000,000	841,192,875	621,192,875	1,071,192,875
Securities investment account	335,921,666	151,539,571	276,366,554	672,948,438	455,769,619
Working Capital Advances—					
Departmental.....	7,413,708	9,327,530	32,506,611	29,051,209	21,919,461
Crown corporations.....	116,946,252	96,859,199	46,910,985	32,224,723	20,705,421
Totals, Liquid Assets.....	1,468,048,195	2,616,337,729	1,681,522,850	1,393,459,003	1,660,258,665



## 7.—Balance Sheets of the Federal Government as at Mar. 31, 1945-49—concluded

Assets and Liabilities	1945	1946	1947	1948	1949
<b>Active Assets—concluded</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
Loans to, and Investments in Crown Agencies—					
Bank of Canada capital stock.....	5,920,000	5,920,000	5,920,000	5,920,000	5,920,000
Central Mortgage and Housing Corporation—					
Capital.....	250,000	25,000,000	25,000,000	25,000,000	25,000,000
Loans.....	—	—	—	22,500,000	90,500,000
Canadian Farm Loan Board.....	24,024,189	21,623,227	21,022,882	21,122,357	22,172,357
Railway and steamship companies.....	656,364,583	699,528,379	679,007,739	760,725,105	764,792,373
Miscellaneous.....	137,150,710	134,087,093	141,999,735	144,473,583	150,551,534
Other Loans and Investments—					
To provincial and municipal governments.....	178,253,940	173,903,894	171,373,973	107,744,803	102,369,003
To United Kingdom and other governments.....	1,151,852,580	817,311,424	1,464,077,736	1,846,014,909	1,923,783,303
Canada's Subscription to Capital of—					
International Monetary Fund.....	...	33,150	300,003,150	300,003,150	300,003,150
International Bank for Reconstruction and Development.....	...	35,913	48,785,750	65,035,750	65,035,750
Miscellaneous.....	70,889,678	74,784,743	132,939,161	167,332,231	187,415,470
Totals, Loans and Investments.....	2,224,705,680	1,952,227,823	2,990,130,126	3,465,871,888	3,637,542,940
Provincial debt accounts.....	2,296,152	2,296,152	2,296,152	2,296,152	2,296,152
Deferred charges including unamortized discounts and commissions on loans.....	86,739,038	92,551,071	81,984,024	72,654,440	65,784,892
Sundry suspense accounts.....	757,030,444	1,025,027,959	48,174,900	62,312,393	54,256,183
<b>Gross Totals, Active Assets.</b>	<b>4,538,819,509</b>	<b>5,688,440,734</b>	<b>4,804,108,052</b>	<b>4,996,593,876</b>	<b>5,420,138,832</b>
<i>Less:</i> Reserve for possible losses on ultimate realization of active assets.....	125,000,000	150,000,000	153,668,860	170,881,788	245,869,188
<b>Net Totals, Active Assets...</b>	<b>4,413,819,509</b>	<b>5,538,440,734</b>	<b>4,650,439,192</b>	<b>4,825,712,088</b>	<b>5,174,269,644</b>
<b>Non-Active Assets—</b>					
Capital expenditures.....	1,004,768,615	1,008,901,212	1,019,991,682	1,035,428,385	1,051,576,513
Other.....	553,017,915	576,163,182	574,403,543	562,715,549	564,329,772
Consolidated deficit account.....	9,740,575,488	11,836,341,055	11,453,361,323	10,773,492,959	10,160,227,867
<b>Totals, Net Debt.....</b>	<b>11,298,362,018</b>	<b>13,421,405,449</b>	<b>13,047,756,548</b>	<b>12,371,636,893</b>	<b>11,776,134,152</b>
<b>Totals, Gross Debt.....</b>	<b>15,712,181,527</b>	<b>18,959,846,183</b>	<b>17,698,195,740</b>	<b>17,197,348,981</b>	<b>16,950,403,795</b>
<b>Liabilities<sup>1</sup>—</b>					
Floating debt.....	165,067,379	182,394,475	410,287,361	458,604,421	450,699,831
Deposit and trust accounts.....	993,601,448	1,366,378,362	175,437,523	115,665,726	107,500,584
Insurance, pension and guaranty accounts.....	406,471,918	457,993,538	526,843,490	610,731,903	718,015,689
Deferred credits.....	26,378,546	25,348,721	9,297,212	3,979,755	4,350,636
Sundry suspense accounts.....	81,334,200	66,491,899	19,382,550	31,432,608	59,617,634
Provincial debt accounts.....	11,919,965	11,919,969	11,919,969	11,919,969	11,919,969
Reserve for certain contingent liabilities.....	43,644,493	41,677,278	2	2	2
Reserve for conditional benefits—Veterans' Land Act, 1942.....	2	464,175	3,127,454	7,632,006	13,262,872
Funded debt, unmatured.....	13,983,763,575	16,807,177,765	16,541,900,182	15,957,382,593	15,585,036,580
<b>Totals, Liabilities or Gross Debt.....</b>	<b>15,712,181,527</b>	<b>18,959,846,183</b>	<b>17,698,195,740</b>	<b>17,197,348,981</b>	<b>16,950,403,795</b>

<sup>1</sup> Direct liabilities only. Indirect liabilities or guarantees given by the Government of Canada are dealt with in Table 27, p. 1028.

<sup>2</sup> In the *Public Accounts* no charge was made against this item.

## Subsection 2.—Revenues and Expenditures

In the fiscal year ended Mar. 31, 1949, revenues declined by \$100,351,035 from the previous year while expenditures fell by \$19,734,120. The surplus of revenues over expenditures for the fiscal year amounted to \$595,502,741. Total revenues aggregated \$2,771,395,075 compared with \$2,871,746,110 in 1947-48. Tax revenues were \$15,933,119 less than for the previous year but non-tax revenues increased by \$35,176,961. Special receipts and other credits declined by \$119,594,877 due largely to smaller receipts from sales of surplus war assets.

Total expenditures were \$2,175,892,334 in 1948-49 compared with \$2,195,626,454 in the previous year. Demobilization and reconversion expenditures continued to decrease, \$425,573,782 being disbursed for this purpose compared with \$634,421,026 in 1947-48. Ordinary expenditures increased to \$1,573,449,934 in 1948-49 and accounted for 72 p.c. of total expenditures during the year.

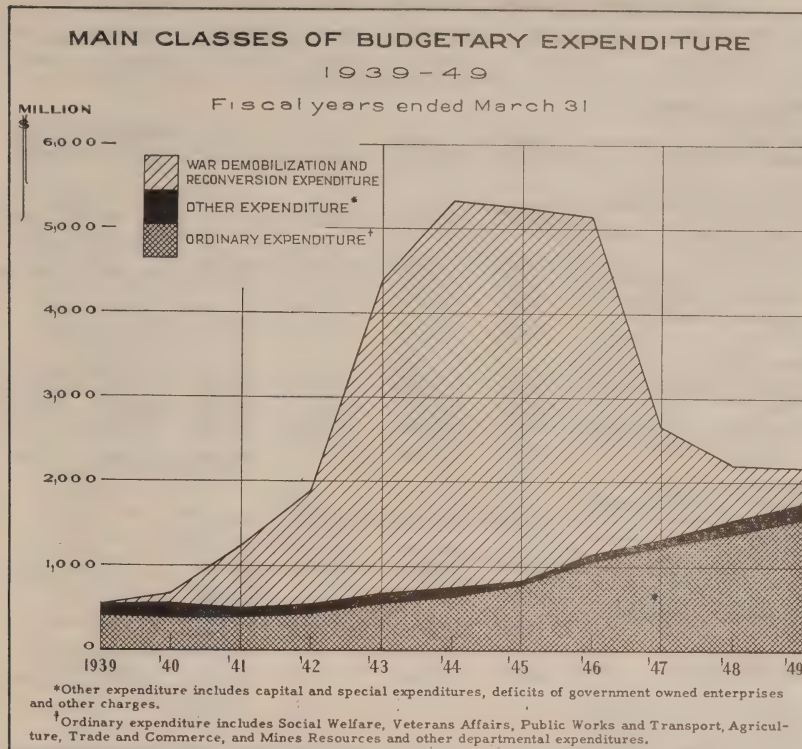
Capital expenditures totalling \$18,473,566 in 1948-49 were higher than in the previous year while special expenditures totalling \$34,813,506 showed a sharp decrease from 1947-48.

The increase in the Canadian National Railways deficit was chiefly responsible for the increase in expenditure on account of Government-owned enterprises which totalled \$39,662,806 in 1948-49 compared with \$18,695,247 in 1947-48.

## 8.—Details of Revenues, Years Ended Mar. 31, 1944-49

Revenues	1944	1945	1946	1947	1948	1949
	\$	\$	\$	\$	\$	\$
<b>Ordinary Revenues—</b>						
Tax Revenues—						
Customs import duties....	167,882,089	115,091,376	128,876,811	237,355,397	293,012,027	222,975,471
Excise duties.....	142,124,331	151,922,140	186,726,318	196,043,816	196,794,208	204,651,969
Income tax.....	1,036,757,035 <sup>1</sup>	977,758,068 <sup>1</sup>	932,729,273	939,458,244	1,059,848,357	1,297,999,404
Excess profits tax.....	428,717,840 <sup>1</sup>	341,305,357 <sup>1</sup>	426,696,483	442,497,443	227,030,494	44,791,918
Sales tax (net).....	304,913,484	209,389,876	212,247,444	298,227,867	372,329,205	377,302,763
War exchange tax.....	118,912,840	98,164,427	41,198,213	338,409	—	—
Succession duties.....	15,019,830	17,250,798	21,447,573	23,576,071	30,828,040	25,549,777
Gasoline tax.....	24,930,255	29,670,693	29,836,191	36,220,057	2,207,816	—
Other taxes.....	197,553,780	214,073,913	222,600,081	253,944,009	270,025,248	262,870,974
Totals, Tax Revenues.....	2,436,811,484	2,154,626,648	2,202,358,387	2,427,661,313	2,452,075,395	2,436,142,276
Non-Tax Revenues—						
Post Office.....	61,070,919	66,055,520	68,613,113	72,978,339	77,758,408	80,604,216
Return on investments....	48,281,313 <sup>2</sup>	60,749,185 <sup>2</sup>	70,914,626 <sup>2</sup>	69,438,880 <sup>2</sup>	75,799,912 <sup>2</sup>	107,888,905 <sup>2</sup>
Bullion and coinage.....	8,731,930	4,586,427	4,954,034	2,097,867	1,731,286	3,253,179
Premium, discount and exchange.....	2,153,879	—	—	—	—	—
Other.....	13,044,899	14,079,593	16,321,694	16,354,496	22,480,984	21,201,251
Totals, Non-Tax Revenues	133,282,940	145,470,725	160,803,467	160,869,582	177,770,590	212,947,551
<b>Totals, Ordinary Revenues</b>	<b>2,570,094,424</b>	<b>2,300,097,373</b>	<b>2,363,161,854</b>	<b>2,588,530,895</b>	<b>2,629,845,985</b>	<b>2,649,089,827</b>
<b>Special Receipts</b> (sundry receipts and credits).....	<b>193,636,614</b>	<b>385,905,221</b>	<b>649,602,045</b>	<b>416,758,276</b>	<b>229,621,503</b>	<b>119,854,831</b>
<b>Other Credits—</b>						
Refunds on capital account.....	93,305	728,195	375,643	109,777	219,272	2,325,439
Credits to non-active accounts.....	1,193,370	604,010	45,532	2,477,365	12,059,350	124,978
<b>Totals, Other Credits...</b>	<b>1,286,675</b>	<b>1,332,205</b>	<b>421,175</b>	<b>2,587,142</b>	<b>12,278,622</b>	<b>2,450,417</b>
<b>Grand Totals, Revenues...</b>	<b>2,765,017,713</b>	<b>2,687,334,799</b>	<b>3,013,185,074</b>	<b>3,097,876,313</b>	<b>2,871,746,110</b>	<b>2,771,395,075</b>

<sup>1</sup> Excludes refundable portion.<sup>2</sup> Includes interest on investments, profits of the Bank of Canada and the Central Mortgage Bank and other items.



### 9.—Details of Expenditures, Years Ended Mar. 31, 1944-49

Expenditures	1944	1945	1946	1947	1948	1949
	\$	\$	\$	\$	\$	\$
<b>Ordinary Expenditures—</b>						
Agriculture.....	8,841,403	9,424,274	10,318,960	13,300,123	16,310,711	20,376,095
Auditor General's Office...	347,589	360,851	379,238	389,934	395,485	533,092
Civil Service Commission.	455,918	460,441	479,632	593,348	664,654	770,955
External Affairs.....	1,531,723	1,910,151	4,521,654	5,127,916	7,194,931	8,675,454
<b>Finance—</b>						
Interest on public debt.....	242,681,180	318,994,821	409,134,502	464,394,876	455,455,204	465,137,958
Cost of loan flotations.....	19,285,402	20,678,683	22,310,720	1,308,955	861,450	1,227,379
Subsidies to provinces.....	14,449,353	14,445,267	14,446,629	14,382,750	33,394,114	17,094,682
Payments to provinces under Dominion-Provincial taxation agreements.....	95,434,862	93,333,930	98,051,769	94,380,510	122,496,918	84,386,923
Other grants and contributions.....	528,458	530,505	617,505	95,005	112,505	146,525
Superannuation.....	345,628	325,316	298,988	257,642	227,319	189,749
Government contribution to Superannuation Fund...	2,298,594	2,340,793	2,696,038	3,160,893	3,488,226	4,050,000
Old age pensions <sup>1</sup> .....	30,377,468	32,187,185	2	2	2	2
Premiums, discount and exchange.....	2	16,348,193	14,733,764	9,172,317	2	2
Other departmental expenditure.....	4,481,128	4,724,155	13,404,607	20,695,146	21,397,255	23,256,524
Fisheries.....	1,696,035	2,159,170	3,262,018	3,598,715	4,097,163	5,158,386
Governor General and Lieutenant-Governors.....	222,042	222,757	226,615	252,053	238,943	242,380

For footnotes see p. 1008.



## 9.—Details of Expenditures, Years Ended Mar. 31, 1944-49—continued

Expenditures	1944	1945	1946	1947	1948	1949
	\$	\$	\$	\$	\$	\$
<b>Ordinary Expenditures—</b>						
concluded						
Insurance.....	183,132	185,305	198,964	212,232	237,242	262,937
Justice Department.....	5,472,035	5,631,915	6,106,031	6,999,650	8,481,301	9,887,873
Labour Department—						
Labour (including technical education).....	1,169,462	1,446,016	1,620,934	2,009,864	2,651,249	16,120,262
Unemployment Insurance Act, 1940—						
Administration.....	5,170,900	5,112,627	6,184,964	7,496,042	35,140,405	39,068,134
Government contribution	12,344,422	12,746,179	12,513,779	15,200,000		
Government annuities—						
payments to maintain reserve.....	32,180	257,288	293,798	977,070	4	4
Legislation—						
House of Commons.....	1,916,484	1,613,923	2,235,744	2,786,392	3,022,172	2,628,546
Library of Parliament.....	76,873	71,682	73,846	90,020	102,717	126,426
Senate.....	562,023	484,349	726,817	880,777	946,477	736,488
General.....	84,455	94,644	98,035	166,906	269,725	271,692
Chief Electoral Office, including elections.....	88,128	178,766	3,091,391	143,904	150,544	287,092
Mines and Resources—						
Administration and general expenditures.....	169,558	167,623	164,776	172,902		
Immigration and colonization.....	1,260,594	1,309,034	1,523,246	2,046,801		
Indian Affairs.....	5,177,044	6,161,994	4,466,983	5,948,335	23,614,832	46,266,789
Land, Parks and Forests.....	1,586,162	1,831,040	2,688,657	4,961,843		
Surveys and Engineering.....	1,270,934	1,610,166	1,322,694	3,444,230		
Mines and Geological Survey.....	1,124,281	1,215,674	1,302,733	1,846,984		
National Defence—						
General Services.....	68,173	67,294	126,543	253,127	615,055	13,857,453
National Health and Welfare—						
Administration and general expenditures.....	—	1,725,263	7,293,560	8,616,692	10,814,479	21,908,625
Family allowances.....	—	—	172,632,147	245,140,532	263,165,192	270,909,779
Old age pensions <sup>1</sup> .....	—	—	33,715,092	35,927,514	58,089,960	66,764,285
National Revenue (including Income Tax).....	17,720,659	20,114,268	22,630,175	28,551,183	37,312,033	49,323,139
National War Services.....	547,158	837,719	5,183	—	—	—
Pensions, war and military.....	38,997,920	—	—	—	—	—
Pensions and National Health.....	15,843,443	7	—	7	—	7
Post Office.....	48,485,009	54,629,281	57,729,646	64,213,050	67,943,476	77,642,621
Prime Minister's office.....	64,683	64,217	61,022	88,733	99,268	105,605
Privy Council.....	79,800	81,030	418,621 <sup>8</sup>	808,462 <sup>9</sup>	1,287,077 <sup>8</sup>	4,350,616 <sup>8</sup>
Public Archives.....	123,735	123,558	126,877	148,906	157,164	172,578
Public Printing and Stationery.....	234,762	232,299	238,136	292,889	535,701	753,345
Public Works.....	12,280,674	13,168,726	16,283,531	26,359,878	35,544,648	50,643,454
Reconstruction and Supply.....	2,179,260	3,725,507	4,442,317	3,707,616	13,485,046 <sup>9</sup>	3,403,083
Royal Canadian Mounted Police.....	6,677,804	7,182,689	7,283,610	8,604,309	10,405,879	13,717,043
Secretary of State.....	831,371	863,541	954,418	1,156,771	1,344,866	1,558,814
Soldier Settlement.....	836,945	—	—	—	—	—
Trade and Commerce.....	7,084,982	6,699,470	7,349,323	10,878,623	10,845,947	26,942,409 <sup>9</sup>
Transport.....	17,658,932	18,265,081	18,266,655	21,687,541	30,122,568	41,496,367
Veterans Affairs.....	— <sup>10</sup>	81,031,273	72,849,232	93,304,690	97,282,123	182,998,377
<b>Totals, Ordinary Expenditures.....</b>	<b>630,380,760</b>	<b>767,375,933</b>	<b>1,061,902,119</b>	<b>1,236,234,650</b>	<b>1,380,002,023</b>	<b>1,573,449,934</b>

<sup>1</sup> Includes pensions to blind persons.<sup>2</sup> Old age pensions included under National Health and Welfare.<sup>3</sup> In the Public Accounts no charge is made against this item for this year.<sup>4</sup> Included under Labour (including technical education).<sup>5</sup> Included under Department of Finance.<sup>6</sup> Included under Department of Veterans Affairs.<sup>7</sup> Included under Departments of Veterans Affairs and National Health and Welfare.<sup>8</sup> Includes Federal District Commission.<sup>9</sup> Includes special expenditures on the Chalk River Project and other activities of the National Research Council.<sup>10</sup> See under "Soldier Settlement", Veterans Affairs not organized in 1944.

## 9.—Details of Expenditures, Years Ended Mar. 31, 1944-49—continued

Expenditures	1944	1945	1946	1947	1948	1949
	\$	\$	\$	\$	\$	\$
<b>Capital Expenditures—</b>						
Railways.....	692,382	629,639	2,313,241	2,654,150	3,809,480	3,238,881
Public Works.....	1,929,596	2,534,113	2,194,999	8,546,097	11,846,495	15,234,685
<b>Totals, Capital Expenditures.....</b>	<b>2,621,978</b>	<b>3,163,752</b>	<b>4,508,240</b>	<b>11,200,247</b>	<b>15,655,975</b>	<b>18,473,566</b>
<b>Special Expenditures—</b>						
Western drought area relief.	2,794,424	1,438,131	12,379,224	6,930,516	11,193,653	9,042,559
Wheat acreage reduction payments including administration.....	30,950,346	1,967,546	556,500	1,732	—	—
Subsidy payments on oats and barley used as feed for live stock.....	—	—	—	—	13,963,218	—
Canadian Wheat Board....	—	186,445	—	20,562,264	31,450,497	4,454,250
Other.....	3,751,537	3,868,682	4,422,678	4,431,671	6,533,377	21,316,697
<b>Totals, Special Expenditures.....</b>	<b>37,496,307</b>	<b>7,505,786</b>	<b>17,358,402</b>	<b>31,926,183</b>	<b>63,140,746</b>	<b>34,813,506</b>
<b>War, Demobilization and Reconversion Expenditures—</b>						
War and demobilization...	3,674,419,874	3,615,100,612	2,668,180,597	1,314,798,107	634,421,026	425,573,782
Mutual Aid.....	912,603,220	803,345,703	909,768,600 <sup>1</sup>	...	...	...
Write-off of Air Training Plan Loans.....	...	...	425,000,000	...	...	...
<b>Totals, War Demobilization and Reconversion Expenditures.....</b>	<b>4,587,023,094</b>	<b>4,418,446,315</b>	<b>4,002,949,197</b>	<b>1,314,798,107</b>	<b>634,421,026</b>	<b>425,573,782</b>
<b>Government-Owned Enterprises—</b>						
Losses Charged to Consolidated Deficit Account—						
Canadian National Railways.....	—	—	—	8,961,570	15,885,194	33,532,741
Prince Edward Island car ferry.....	698,365	773,384	687,800	887,964	931,856	1,219,881
National Harbours Board.	29,488	58,907	85,859	114,601	137,162	237,743
Trans-Canada Air Lines..	—	—	—	—	1,369,678	2,933,240
Loans and Advances (non-active)—						
National Harbours Board	579,108	525,767	559,758	717,727	371,356	1,739,201
<b>Totals, Government-Owned Enterprises....</b>	<b>1,306,961</b>	<b>1,358,058</b>	<b>1,333,417</b>	<b>10,681,863</b>	<b>18,695,247</b>	<b>39,662,806</b>
<b>Other Charges—</b>						
Write-down of Assets Chargeable to Consolidated Deficit Account—						
Soldier and general land settlement loans.....	553,385	324,875	35,517	231,629	2,522	422
Veterans' Land Act loans..	—	—	—	128,507	2,097,391	999,680
Losses in seed grain and relief accounts.....	28,847	36,006	45,436	54,649	62,572	44,666
Cancellation of Canadian Farm Loan Board capital stock.....	4,592	1,146	962	345	525	—
Transfer from Capital Account to Consolidated Deficit Account.....	—	—	—	—	158,407	2,243,106
Reduction in equity in C.N.R.....	—	—	—	1,307,952	1,885,469	—
Reserve for possible losses on active assets.....	25,000,000	25,000,000	25,000,000	25,000,000	75,000,000	75,000,000
Reserve for benefits under Veterans' Land Act, 1942.	—	—	464,175	2,663,279	4,504,552	5,630,866
Write-down of active assets to non-active assets.	-232,115 <sup>2</sup>	-626,872 <sup>2</sup>	-2,125,089 <sup>2</sup>	—	—	—

<sup>1</sup> Authorized under War Appropriation Act.  
change in the method of dealing with the item.<sup>2</sup> Not comparable with previous years due to a

## 9.—Details of Expenditures, Years Ended Mar. 31, 1944-49—concluded

Expenditures	1944	1945	1946	1947	1948	1949
	\$	\$	\$	\$	\$	\$
<b>Other Charges—concluded</b>						
Non-Active Accounts—						
Capital gain on repatriation						
of C.N.R. securities.....	2,430,284	—	—	—	—	—
Increase in equity in the						
C.N.R. due to surplus						
earnings.....	35,639,412	23,026,925	24,756,130	—	—	—
<b>Totals, Other Charges..</b>	<b>63,424,405</b>	<b>47,762,080</b>	<b>48,177,131</b>	<b>29,386,362</b>	<b>83,711,437</b>	<b>83,918,740</b>
<b>Grand Totals, Expendi-</b>						
<b>tures.....</b>	<b>5,322,253,505</b>	<b>5,245,611,924</b>	<b>5,136,228,506</b>	<b>2,634,227,412</b>	<b>2,195,626,454</b>	<b>2,175,892,334</b>

## 10.—Principal Items of Revenues, Years Ended Mar. 31, 1930-49

Year	Customs Duties	Excise Duties	Income Tax	Excess Profits Tax <sup>1</sup>	Banks, Insurance Companies, etc.
	\$	\$	\$	\$	\$
1930.....	179,429,920	65,035,701	69,020,726	173,300	1,482,836
1931.....	131,208,955	57,746,808	71,048,022	34,430	1,503,520
1932.....	104,132,677	48,654,862	61,254,400	3,000	1,402,273
1933.....	70,072,932	37,833,858	62,066,697	54	2,153,685
1934.....	66,305,356	35,494,220	61,399,171	—	2,077,227
1935.....	76,561,975	43,189,655	66,808,066	—	2,118,580
1936.....	74,004,560	44,409,797	82,709,803	—	2,041,776
1937.....	83,771,091	45,956,857	102,365,242	—	1,984,257
1938.....	93,455,750	52,037,333	120,365,532	—	1,973,679
1939.....	78,751,111	51,313,658	142,026,138	—	1,905,315
1940.....	104,301,487	61,032,044	134,448,566	—	1,874,923
1941.....	130,757,012	88,607,559	248,143,022 <sup>2</sup>	23,995,269	2,505,556
1942.....	142,392,232	110,090,941	510,243,017 <sup>2</sup>	135,168,345	2,636,623
1943.....	118,962,839	138,720,723	860,188,672 <sup>3</sup>	434,580,677 <sup>3</sup>	12,281,142
1944.....	167,882,089	142,124,331	1,036,757,035 <sup>3</sup>	428,717,840 <sup>3</sup>	7,691,066
1945.....	115,091,376	151,922,140	977,758,068 <sup>3</sup>	341,305,357 <sup>3</sup>	8,233,638
1946.....	128,876,811	186,726,318	932,729,273 <sup>3</sup>	426,696,483 <sup>3</sup>	8,971,967
1947.....	237,355,397	196,043,816	939,458,244 <sup>3</sup>	442,497,443 <sup>3</sup>	9,706,739
1948.....	293,012,027	196,794,208	1,059,848,357	227,030,494	3,804,001
1949.....	222,975,471	204,651,969	1,297,999,404	44,791,918	4,036,050
	Sales and Other Excise Taxes	Succession Duties	Post Office	Interest on Investments	Total Revenue <sup>4</sup>
	\$	\$	\$	\$	\$
1930.....	63,409,143	...	33,345,385	13,518,205	453,007,129
1931.....	64,734,661	...	30,212,326	10,421,224	357,720,435
1932.....	59,606,391	...	32,234,946	9,330,125	334,508,081
1933.....	82,191,575	...	30,928,317	11,220,989	311,735,286
1934.....	106,575,575	...	30,893,157	11,148,231	324,660,590
1935.....	112,192,069	...	31,248,324	10,963,478	361,973,764
1936.....	112,733,048	...	32,507,889	10,614,125	372,595,996
1937.....	152,473,422	...	34,274,552	11,231,035	454,153,747
1938.....	180,818,767	...	35,546,161	13,120,523	516,692,749
1939.....	161,710,572	...	35,288,220	13,163,015	502,171,354
1940.....	166,027,944	...	36,729,105	13,393,432	562,093,459
1941.....	284,167,032	...	40,383,366	14,910,554	872,169,645
1942.....	453,425,105	6,956,574	45,993,872	21,748,701	1,488,536,342
1943.....	488,712,425	13,273,483	48,868,762	41,242,237 <sup>5</sup>	2,249,496,177
1944.....	638,619,292	15,019,831	61,070,919	48,281,313 <sup>5</sup>	2,765,017,713

<sup>1</sup> Belated revenue from the business profits tax not charged on profits accruing after Dec. 31, 1920, but received until 1933. <sup>2</sup> Includes National Defence Tax. <sup>3</sup> Excludes refundable portion.

<sup>4</sup> Includes other items not specified. <sup>5</sup> Includes interest on investments, profits of the Bank of Canada and the Central Mortgage Bank and other items.



## 10.—Principal Items of Revenues, Years Ended Mar. 31, 1930-49—concluded

Year	Sales and Other Excise Taxes	Succession Duties	Post Office	Interest on Investments	Total Revenue <sup>1</sup>
	\$	\$	\$	\$	\$
1945.....	543,065,271	17,250,798	66,055,520	60,749,186 <sup>2</sup>	2,687,334,799
1946.....	496,909,961	21,447,573	68,613,113	70,914,626 <sup>2</sup>	3,013,185,074
1947.....	579,023,601	23,576,071	72,978,339	69,438,880	3,007,876,313
1948.....	640,758,269	30,828,040	77,758,408	75,799,912	2,871,746,110
1949.....	636,137,688	25,549,777	80,604,216	107,888,905	2,771,395,075

<sup>1</sup> Includes other items not specified.

<sup>2</sup> Includes interest on investments, profits of the Bank of Canada and the Central Mortgage Bank and other items.

## 11.—Principal Items of Expenditures, Years Ended Mar. 31, 1930-49

NOTE.—Figures for the years 1868-1913, inclusive, are given at pp. 845-847 of the 1938 Year Book; those for 1914-29 at p. 930 of the 1945 edition.

Year	Ordinary Expenditures							
	Interest on Debt	Old Age Pensions	Pensions, War, Military and Civil	Public Works	National Defence	Subsidies to Provinces	Post Office	Total Ordinary Expenditures <sup>1</sup>
	\$	\$	\$	\$	\$	\$	\$	\$
1930...	121,566,213	1,537,174	40,406,565	19,819,032	21,986,537	12,496,958	36,557,012	363,237,478
1931...	121,289,844	5,658,143	45,965,723	25,452,742	23,736,447	17,435,736	37,891,693	386,584,863
1932...	121,151,106	10,032,410	48,686,389	17,647,854	18,221,632	13,694,970	36,052,208	372,101,318
1933...	134,999,069	11,512,543	45,078,919	13,108,013	13,750,314	13,677,384	31,607,404	354,643,201
1934...	139,725,417	12,313,595	43,883,132	10,827,171	13,476,862	13,727,565	30,553,768	351,771,161
1935...	138,533,202	14,942,459	44,235,808	9,904,494	14,185,772	13,768,953	30,252,310	359,700,909
1936...	134,549,169	16,764,484	43,337,096	12,945,277	17,177,074	13,768,953	31,437,719	372,539,149
1937...	137,410,345	21,149,352	43,356,180	14,518,758	22,923,093	13,735,196	31,906,272	387,112,072
1938...	132,117,422	28,653,005 <sup>2</sup>	42,823,277	12,382,073	32,760,307	13,735,336	33,762,269	414,891,410
1939...	127,995,617	29,043,639 <sup>2</sup>	42,793,055	15,484,197	34,432,023	13,752,110	35,455,182	413,032,202
1940...	129,315,442	29,976,554 <sup>2</sup>	42,868,901	13,065,212	13,118,732	13,768,953	36,725,870	398,323,206
1941...	139,178,670	29,911,700 <sup>2</sup>	42,195,709	11,506,678	193,985	13,768,953	38,699,674	390,629,350
1942...	155,017,901	29,611,796 <sup>2</sup>	41,244,221	11,937,005	260,482	14,408,622	41,501,869	444,777,696
1943...	188,556,249	29,976,014 <sup>2</sup>	39,699,351 <sup>3</sup>	12,013,845	415,128	14,490,085	44,741,987	561,251,063
1944...	242,681,180	30,377,468 <sup>2</sup>	38,997,920 <sup>3</sup>	12,280,674	68,713	14,449,353	48,485,009	630,380,760
1945...	318,994,821	32,227,718 <sup>2</sup>	39,371,792 <sup>3</sup>	13,168,726	67,293	14,445,267	54,629,281	767,375,932
1946...	409,134,502	33,715,092 <sup>2</sup>	39,996,360 <sup>3</sup>	16,283,531	126,543	14,446,629	57,729,646	1,061,902,119
1947...	464,394,876	35,927,514 <sup>2</sup>	40,770,636 <sup>3</sup>	26,359,878	253,127	14,382,750	64,213,050	1,236,234,650
1948...	455,455,204	58,089,961 <sup>2</sup>	41,227,033 <sup>3</sup>	35,544,648	615,055	33,394,114	67,943,476	1,380,002,023
1949...	465,137,958	66,764,285	102,951,293 <sup>4</sup>	50,643,454	13,857,453	17,094,682	77,642,621	1,573,449,934
	Capital Expenditures				Other Expenditures			Total Expenditures
	Public Works	Railways	Canals	Total	War, Demobilization and Reconversion	Other Charges <sup>5</sup>	Total	
	\$	\$	\$	\$	\$	\$	\$	
1930...	8,589,022	6,873,511	10,264,187	25,726,720	...	16,302,185	16,302,185	405,266,383
1931...	12,145,264	6,702,854	9,862,574	28,710,692	...	26,272,857	26,272,857	441,585,413
1932...	7,485,438	6,376,207	3,304,298	17,165,943	...	59,475,056	59,475,056	448,742,316
1933...	4,233,789	1,658,812	3,156,328	9,048,929	...	168,677,810	168,677,810	532,369,940
1934...	3,839,751	754,194	1,986,140	6,580,085	...	99,806,659	99,806,659	458,157,905
1935...	6,243,737	525,772	337,907	7,107,416	...	111,298,256	111,298,256	478,106,581
1936...	5,799,341	286,887	457,926	6,544,154	...	153,502,252	153,502,252	532,585,555
1937...	3,236,564	203,035	51,945	3,491,544	...	141,401,816	141,401,816	532,005,432
1938...	4,358,698	71,454	—	4,430,152	...	115,086,555	115,086,555	534,408,118
1939...	5,397,928	26,348	—	5,424,276	...	134,606,619	134,606,619	553,063,098

For footnotes, see p. 1012.

## 11.—Principal Items of Expenditures, Years Ended Mar. 31, 1930-49—concluded

Year	Capital Expenditures				Other Expenditures			Total Expenditures
	Public Works	Railways	Canals	Total	War, Demobilization and Reconversion	Other Charges <sup>5</sup>	Total	
	\$	\$	\$	\$	\$	\$	\$	\$
1940...	7,007,468	22,570	—	7,030,038	118,291,022	157,149,526	275,440,548	680,793,792
1941...	3,350,989	6,821	—	3,357,810	752,045,326	103,568,960	855,614,286	1,249,601,446
1942...	3,425,930	4,517	—	3,430,447	1,339,674,152	97,183,761	1,436,857,913	1,885,066,056
1943...	3,238,130	37,555	—	3,275,685	3,724,248,890	98,348,479	3,822,597,369	4,887,124,117
1944...	1,929,596	692,382	—	2,621,978	4,587,023,094	102,227,673	4,689,250,767	5,322,253,505
1945...	2,534,113	629,639	—	3,163,752	4,418,446,315	56,625,925	4,475,072,240	5,245,611,924
1946...	2,194,999	2,313,241	—	4,508,240	4,002,949,197	66,868,950	4,069,818,147	5,136,228,506
1947...	8,546,097	2,654,150	—	11,200,247	1,314,798,107	71,994,408	1,386,792,515	2,634,227,412
1948...	11,846,495	3,809,480	—	15,655,975	634,421,026	165,547,430	799,968,456	2,195,626,454
1949...	15,234,685	3,238,881	—	18,473,566	425,573,782	158,395,052	583,968,834	2,175,892,334

<sup>1</sup> Includes various non-enumerated items.<sup>2</sup> Includes pensions to blind persons.<sup>3</sup> Excludes

civil pensions.

<sup>4</sup> Includes Second World War.<sup>5</sup> For details, see Table 12.

## 12.—Analysis of "Other Charges" (Shown in Table 11), Years Ended Mar. 31, 1930-49

Year	Special Expenditures		Government-Owned Enterprises		Other Charges		Total
	Direct Relief, Relief Projects and Other Works	Wheat Bonus and Losses on Grain Marketing Operations, etc.	Losses Charged to Consolidated Fund	Loans and Advances Non-Active	Write-Down of Assets Chargeable to Consolidated Fund	Non-Active Accounts	
	\$	\$	\$	\$	\$	\$	\$
1930.....	—	—	4,308,357	8,244,950	3,731,536	17,342	16,302,185
1931.....	4,431,655	—	6,712,239	5,487,941	9,640,997	25	26,272,857
1932.....	38,295,515	10,908,429	6,631,856	3,112,285	526,971	—	59,475,056
1933.....	36,720,935	1,811,472	62,139,413	66,453,050 <sup>1</sup>	105,717	1,447,223	168,677,810
1934.....	35,898,311	—	58,955,388	2,095,773	1,857,087	1,000,100	99,806,659
1935.....	60,659,856	—	48,407,901	1,728,900	490,191	11,408	111,298,256
1936.....	79,416,256	22,631,029	48,817,489	2,122,912	514,566	—	153,502,252
1937.....	78,003,702	—	43,553,112	665,414	692,473	18,487,115	141,401,816
1938.....	68,534,364	—	42,745,791	2,087,597	1,579,242	139,561	115,086,555
1939.....	46,895,407	25,000,000 <sup>2</sup>	55,658,306	3,285,188	3,767,718	—	134,606,619
1940.....	54,612,951	34,500,000 <sup>3</sup>	41,044,004	1,035,145	23,320,028	2,637,398	157,149,526
1941.....	27,646,853	15,222,245	17,465,731	715,948	29,878,632 <sup>4</sup>	12,639,551	103,568,960
1942.....	8,500,359	55,475,414	456,166	758,089	27,878,132 <sup>4</sup>	4,115,601	97,183,761
1943.....	5,013,305	26,274,573	591,095	657,526	29,676,119 <sup>4</sup>	36,135,861	98,348,479
1944.....	3,751,537	33,744,770	727,853	579,108	25,586,824 <sup>4</sup>	37,837,581	102,227,673
1945.....	3,868,682	3,637,104	832,291	525,767	25,362,027 <sup>4</sup>	22,400,054	56,625,925
1946.....	4,422,678	12,935,724	773,659	559,758	25,646,090 <sup>4</sup>	22,631,041	66,868,950
1947.....	4,431,671	27,494,612	9,964,136	717,727	29,386,361 <sup>4</sup>	—	71,994,408
1948.....	6,533,377	56,607,369 <sup>5</sup>	18,323,891	371,356	83,711,437 <sup>6</sup>	—	165,547,430
1949.....	21,316,697 <sup>7</sup>	13,496,809	37,923,605	1,739,201	89,918,740 <sup>6</sup>	—	158,395,052

<sup>1</sup> Includes a write-down of assets amounting to \$62,938,239.<sup>2</sup> Reserve against estimated losses

on wheat marketing guarantees applicable to the fiscal year 1938-39.

<sup>3</sup> Reserve against estimated

losses on wheat marketing guarantees applicable to the fiscal year 1939-40 to the extent of \$27,000,000.

<sup>4</sup> Includes \$25,000,000 as reserve against possible losses on assets.<sup>5</sup> Includes \$13,963,218 subsidy

payments on oats and barley used as feed for live stock.

<sup>6</sup> Includes \$75,000,000 as reserve for possible

losses on assets.

<sup>7</sup> Includes Fraser Valley, B.C., Emergency Relief and Rehabilitation.

**13.—Per Capita Revenues and Expenditures, Years Ended Mar. 31, 1930-49**

NOTE.—The years marked with an asterisk (\*) are Census years; per capita figures for intercensal years are based on estimated populations, see p. 155. See Tables 8 and 9 for the figures of revenues and expenditures on which this table is based. Figures for the years 1868-1912, inclusive, will be found at p. 849 of the 1938 Year Book; those for 1913-29 at p. 932 of the 1945 edition.

Year	Per Capita				Year	Per Capita			
	Revenue from Taxation	Total Revenue	Ordinary Expenditure	Total Expenditure		Revenue from Taxation	Total Revenue	Ordinary Expenditure	Total Expenditure
	\$	\$	\$	\$		\$	\$	\$	\$
1930.....	37-09	43-68	35-06	39-01	1940.....	41-14	49-39	35-00	59-82
1931*.....	28-55	34-33	37-54	42-41	1941*.....	67-63	75-80	33-95	108-61
1932.....	26-17	32-04	35-72	42-91	1942.....	116-78	127-73	38-17	161-75
1933.....	23-92	29-32	33-35	50-07	1943.....	174-97	190-44	47-52	371-41
1934.....	25-31	30-23	32-75	42-66	1944.....	203-49	230-90	52-64	444-45
1935.....	28-07	33-38	33-17	44-09	1945.....	177-79	221-74	63-32	432-84
1936.....	28-98	34-03	34-02	48-64	1946.....	178-95	244-84	86-28	417-34
1937.....	35-00	41-12	35-23	48-17	1947.....	192-95	239-06	98-25	209-36
1938.....	40-23	46-33	37-20	47-92	1948.....	190-33	222-91	107-12	170-43
1939.....	38-67	44-57	36-66	49-09	1949.....	179-80	204-55	116-13	160-59

**14.—Per Capita Revenues and Expenditures, by Principal Items, Years Ended Mar. 31, 1944-49**

NOTE.—See Table 8 for revenues and Table 9 for expenditures on which these per capita figures are based.

Revenues and Expenditures	1944	1945	1946	1947	1948	1949
<b>REVENUES</b>						
<b>Ordinary Revenues—</b>	\$	\$	\$	\$	\$	\$
Tax Revenues—						
Customs import duties.....	14-02	9-50	10-47	13-87	22-74	16-46
Excise duties.....	11-87	12-54	15-17	15-58	15-27	15-10
Income tax.....	86-58	80-68	75-79	74-67	82-27	95-80
Excess profits tax.....	35-80	28-16	34-67	35-17	17-62	3-31
Sales tax (net).....	25-46	17-28	17-25	23-70	28-90	27-85
War exchange tax.....	9-93	8-10	3-35	0-03	...	...
Succession duties tax.....	1-25	1-42	1-74	1-87	2-39	1-89
Gasoline tax.....	2-08	2-45	2-43	2-88	0-18	...
Other taxes.....	16-50	17-66	18-08	20-18	20-96	19-40
<b>Totals, Tax Revenues.....</b>	<b>203-49</b>	<b>177-79</b>	<b>178-95</b>	<b>192-95</b>	<b>190-33</b>	<b>179-80</b>
<b>Non-Tax Revenues—</b>						
Post Office.....	5-10	5-45	5-58	5-80	6-04	5-95
Return on investments.....	4-03	5-01	5-76	5-52	5-88	7-96
Bullion and coinage.....	0-73	0-38	0-40	0-16	0-13	0-24
Premium, discount and exchange.....	0-18	—	—	—	—	—
Other.....	1-09	1-16	1-33	1-30	1-75	1-57
<b>Totals, Non-Tax Revenues.....</b>	<b>11-13</b>	<b>12-00</b>	<b>13-07</b>	<b>12-78</b>	<b>13-80</b>	<b>15-72</b>
<b>Totals, Ordinary Revenues.....</b>	<b>214-62</b>	<b>189-79</b>	<b>192-02</b>	<b>205-73</b>	<b>204-13</b>	<b>195-52</b>
<b>Special Receipts and Other Credits...</b>	<b>16-28</b>	<b>31-95</b>	<b>52-82</b>	<b>33-33</b>	<b>18-78</b>	<b>9-03</b>
<b>Grand Totals, Revenues.....</b>	<b>230-90</b>	<b>221-74</b>	<b>244-84</b>	<b>239-06</b>	<b>222-91</b>	<b>204-55</b>
<b>EXPENDITURES</b>						
<b>Ordinary Expenditures—</b>	\$	\$	\$	\$	\$	\$
Agriculture.....	0-74	0-78	0-84	1-06	1-27	1-50
Finance—						
Interest on public debt.....	20-27	26-32	33-24	36-91	35-35	34-33
Cost of loan flotations.....	1-61	1-71	1-81	0-10	0-07	0-09
Subsidies to provinces.....	1-21	1-19	1-17	1-14	2-59	1-26



**14.—Per Capita Revenues and Expenditures, by Principal Items, Years Ended  
Mar. 31, 1944-49—concluded**

Expenditures	1944	1945	1946	1947	1948	1949
	EXPENDITURES—concluded					
<b>Ordinary Expenditures—concluded</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
Finance—concluded						
Payments to provinces under Dominion-Provincial taxation agreements	7·97	7·70	7·97	7·50	9·51	6·23
Old age pensions <sup>1</sup>	2·54	2·66	2	2	2	2
Fisheries	0·14	0·18	0·27	0·29	0·32	0·38
Justice (including penitentiaries)	0·46	0·47	0·50	0·56	0·66	0·73
Labour (including technical education, unemployment insurance and government annuities)	1·56	1·61	1·67	2·04	2·93	4·07
Mines and Resources	0·88	1·01	0·93	1·46	1·83	3·41
National Health and Welfare—						
Administration and general expenditures	—	0·14	0·59	0·68	0·84	1·62
Family allowances	3	3	14·02	19·48	20·43	19·99
Old age pensions <sup>1</sup>	3	3	2·74	2·86	4·51	4·93
National Revenue (including income tax)	1·48	1·66	1·84	2·27	2·90	3·64
Pensions, war and military	3·26	4	4	4	4	4
Pensions and National Health	1·32	5	5	5	5	5
Post Office	4·05	4·51	4·69	5·10	5·27	5·73
Public Works	1·03	1·09	1·32	2·10	2·76	3·74
Reconstruction and Supply	0·18	0·30	0·36	0·29	1·05 <sup>6</sup>	0·25
Royal Canadian Mounted Police	0·56	0·59	0·59	0·68	0·81	1·01
Trade and Commerce	0·59	0·55	0·60	0·86	0·84	1·99
Transport	1·47	1·50	1·48	1·72	2·34	3·06
Veterans Affairs	7	6·69	5·92	7·42	7·55	13·51
<b>Totals, Ordinary Expenditures<sup>3</sup></b>	<b>52·64</b>	<b>63·32</b>	<b>86·28</b>	<b>98·25</b>	<b>107·12</b>	<b>116·13</b>
<b>Totals, Capital Expenditures</b>	<b>0·22</b>	<b>0·26</b>	<b>0·37</b>	<b>0·89</b>	<b>1·22</b>	<b>1·36</b>
<b>Totals, Special Expenditures</b>	<b>3·13</b>	<b>0·62</b>	<b>1·41</b>	<b>2·54</b>	<b>4·90</b>	<b>2·57</b>
<b>War, Demobilization and Reconversion Expenditures</b>	<b>383·05</b>	<b>364·59</b>	<b>325·26</b>	<b>104·50</b>	<b>49·24</b>	<b>31·41</b>
<b>Government-Owned Enterprises</b>	<b>0·11</b>	<b>0·11</b>	<b>0·11</b>	<b>0·85</b>	<b>1·45</b>	<b>2·93</b>
<b>Other Expenditures</b>	<b>5·30</b>	<b>3·94</b>	<b>3·91</b>	<b>2·33</b>	<b>6·50</b>	<b>6·19</b>
<b>Grand Totals, Expenditures</b>	<b>444·45</b>	<b>432·84</b>	<b>417·34</b>	<b>209·36</b>	<b>170·43</b>	<b>160·59</b>

<sup>1</sup> Includes pensions to blind persons. Included under Department of Finance.

<sup>2</sup> Included under National Health and Welfare.

<sup>3</sup> In-

Veterans Affairs and National Health and Welfare.

<sup>4</sup> Included under Veterans Affairs.

<sup>5</sup> Included under

War Project and other special activities of the National Research Council.

<sup>7</sup> See under "Pensions

war and military"; Veterans Affairs not organized in 1944.

<sup>8</sup> Includes items not specified.

### Subsection 3.—Analysis of Revenues from Taxation

Table 15 gives total expenditures that have been met by taxation and from all sources of revenue for each of the fiscal years ended Mar. 31, since 1936. In the three years prior to the Second World War the record showed an increasing proportion of expenditures being met by revenue and in 1938, more than 96 p.c. of all expenditures was met from all revenue and almost 84 p.c. from taxation revenue. During the war years expenditures far exceeded revenues but in 1947 taxation met over 92 p.c. of expenditures and revenue from all sources exceeded expenditures. For 1948 and 1949 revenues from taxation alone exceeded total expenditures by a substantial amount due to the maintenance of high taxation levels and a greatly increased national income. This accounts for the situation shown by the figures of Table 15 where percentages of total expenditures provided from taxation and from all revenues are given for 1949 as 111·96 and 127·37, respectively.

**15.—Relationship of Total Expenditures to Taxation Revenue and to Total Revenue,  
Years Ended Mar. 31, 1936-49**

Year	Total Expenditures	Taxation Revenue	Total Revenue	Percentages of Total Expenditures Provided from—	
				Taxation	All Revenue
	\$	\$	\$	p.c.	p.c.
1936.....	532,585,555	317,311,809	372,595,996	59.58	69.96
1937.....	532,065,432	386,550,869	454,153,747	72.66	85.36
1938.....	534,408,118	448,651,061	516,692,749	83.95	96.68
1939.....	553,063,098	435,706,794	502,171,354	78.78	90.80
1940.....	680,793,792	467,684,963	562,093,459	68.70	82.56
1941.....	1,249,601,446	778,175,450	872,169,645	62.28	69.80
1942.....	1,885,066,056	1,360,912,837	1,488,536,342	72.19	78.96
1943.....	4,387,124,117	2,066,719,961	2,249,496,177	47.11	51.27
1944.....	5,322,253,505	2,436,811,484	2,765,017,713	45.78	51.95
1945.....	5,245,611,924	2,154,626,648	2,687,334,799	41.08	51.23
1946.....	5,136,228,506	2,202,358,387	3,013,185,074	42.88	58.67
1947.....	2,634,227,412	2,427,661,313	3,007,876,313	92.16	114.18 <sup>1</sup>
1948.....	2,195,626,454	2,452,075,395	2,871,746,110	111.68 <sup>1</sup>	130.79 <sup>1</sup>
1949.....	2,175,892,334	2,436,142,276	2,771,395,075	111.96 <sup>1</sup>	127.37 <sup>2</sup>

<sup>1</sup> See text at foot of p. 1014 for explanation.

The revenues from customs and excise duties, the two most important sources prior to the First World War, amounted in 1949 to less than 18 p.c. of the revenue derived from taxation and revenue from income tax formed 53 p.c. of the tax revenue.

The following analyses of taxation revenues are confined to excise duties, excise taxes and income tax revenue; customs receipts constitute a single item in the "Public Accounts" and cannot be further analysed here.

### Excise Duties\*

Excise duties proper are presented here together with a summary of the excise tariff and statistics arising as a by-product of administration, such as the quantities of grain and other products used in distillation and the quantities of excisable goods taken out of bond.

**Canadian Excise Tariff.**—The following is a statement of the Canadian excise tariff, as at Dec. 31, 1949:—

1. Spirits distilled in Canada, per proof gal. . . \$11.00  
    Canadian brandy, per proof gal. . . . . \$ 9.00  
    Except spirits as follows:—  
       (a) used in a bonded manufactory for medicines, extracts, etc., per proof gal. . . . . \$ 1.50  
       (b) used in a bonded manufactory for perfumes, per proof gal. . . . . \$ 1.50  
       (c) used for chemical compositions approved by Governor in Council, per proof gal. . . . . \$ 0.15  
       (d) sold to licensed druggists for pharmaceutical preparations, per proof gal. . . . . \$ 1.50  
       (e) distilled from native fruits and used by a licensed wine manufacturer for fortification of native wines, per proof gal. . . . . \$ 1.50
2. Spirits imported (in addition to any of the duties otherwise imposed), per proof gal. . . . . \$ 0.30
3. Beer or Malt Liquor:—  
    Brewed in whole or part from any substance other than malt, per gal. . . . . \$ 0.45
4. Malt:—  
    (a) produced in Canada and screened, per lb. . . . . \$ 0.16  
    (b) imported, per lb. . . . . \$ 0.16
5. Tobacco, Cigars and Cigarettes:—  
    (a) manufactured tobacco, per lb. . . . . \$ 0.35  
    (b) cigarettes weighing not more than 2½ lb. per M, per M. . . . . \$ 6.00  
    (c) cigarettes, weighing more than 2½ lb. per M, per M. . . . . \$11.00  
    (d) Canadian raw leaf tobacco, when sold for consumption, per lb. . . . . \$ 0.20  
    (e) cigars, per M. . . . . \$ 1.00

\* Revised by the Customs and Excise Division, Department of National Revenue, Ottawa.

A drawback of 99 p.c. of the duty may be granted when domestic spirits, testing not less than 50 p.c. over proof, are delivered in limited quantities to universities, scientific or research laboratories, or to any bona fide public hospital for medicinal purposes only.

**Revenues from Excise Duties.**—In the year ended Mar. 31, 1949, tobacco, including cigarettes, supplied about 49 p.c. of the revenue from excise duties.

#### 16.—Gross Excise Duties Collected, Years Ended Mar. 31, 1943-49

(Source: The Report of the Commissioner of Excise)

Item	1943	1944	1945	1946	1947	1948	1949
	\$	\$	\$	\$	\$	\$	\$
Spirits.....	31,612,277	30,908,236	31,576,777	47,766,499	51,729,636	53,360,650	49,976,274
Validation fee..	513,027	441,258	633,523	1,042,625	947,710	770,880	825,371
Beer or malt liquor.....	579,859	371,956	7,102,636	6,646,438	2,511,311	3,819,875	3,740,065
Malt syrup.....	72,762	222,250	244,266	177,152	91,700	67,878	51,825
Malt.....	33,952,236	35,080,381	35,121,290	41,382,052	49,208,816	53,625,293	55,853,055
Tobacco (incl. cigarettes).....	75,757,280	79,315,378	82,538,590	97,595,346	100,867,668	101,900,638	106,033,181
Cigars.....	614,444	590,310	603,483	632,743	294,844	215,479	207,823
Licences.....	38,270	36,626	36,705	38,692	39,690	37,468	39,115
<b>Totals<sup>1</sup>.....</b>	<b>143,140,155</b>	<b>146,966,395</b>	<b>157,857,270</b>	<b>195,281,547</b>	<b>205,691,375</b>	<b>213,798,162</b>	<b>216,726,709</b>

<sup>1</sup> These totals do not agree with net excise duties as shown in Table 8, due to refunds, drawbacks and, in the case of spirits, a transfer tax which is included here.

**Statistics of Licences and Distillation.**—As a by-product of the collection of excise duties, statistics are compiled of excise licences issued and of distillation.

#### 17.—Statistics of Licences and Distillation, Years Ended Mar. 31, 1943-49

Item	1943	1944	1945	1946	1947	1948	1949
Licences issued....No.	20	21	22	22	24	25	27
Licence fees.....\$	5,125	5,250	6,375	5,500	6,625	6,250	6,750
Grain, etc., Used for Distillation—							
Malt.....lb.	30,488,625	45,876,662	65,174,752	62,436,322	38,118,151	49,997,856	31,699,705
Indian corn....."	59,003,261	7,172,323	39,946,582	26,710,786	91,807,930	248,056,463	176,368,186
Rye....."	18,227,483	6,555,429	31,737,221	30,605,412	24,545,992	25,694,278	30,189,564
Other grain <sup>1</sup> ....."	180,352,641	396,967,171	455,098,683	429,448,845	133,173,559	34,616,203	15,462,635
<b>Totals, Grain Used....."</b>	<b>288,072,010</b>	<b>456,571,585</b>	<b>591,957,238</b>	<b>549,201,365</b>	<b>287,645,632</b>	<b>358,364,800</b>	<b>253,720,090</b>
Molasses used....lb.	48,478,178	187,164	66,744	9,429,064	71,690,199	111,812,928	128,034,436
Wine and other materials....."	13,015,476	1,301,748	4,358,519	3,924,329	4,305,252	5,467,095	8,733,086
Sulphide liquor...gal.	—	48,172,196	74,593,045	73,557,030	74,126,650	95,063,070	98,080,000
Proof spirits manufactured....proof gal.	19,657,698	27,203,337	35,555,059	34,625,339	21,571,074	28,198,327	23,643,036

<sup>1</sup> Classification of this figure not available.

The quantity of spirits manufactured has fluctuated greatly since 1920, varying from the low of 2,356,329 proof gal. in that year to the high of 35,555,059 proof gal. recorded in 1945.

**Alcohol and Tobacco Taken Out of Bond.**—For the amounts of spirits, malt liquor, malt and cigarettes taken out of bond for consumption in 1949, see Table 15, p. 856, Chapter XXI.



## Excise Taxes

The statistics given in Table 18 represent gross collections by the Excise Division of the Department of National Revenue; they differ from the figures shown in Table 10 (in the column "Sales and Other Excise Taxes"), which represent net revenues received, by the amounts of the refunds shown in footnote 1 to Table 18.

**18.—Excise War Taxes Collected, by Commodities and Provinces, Years Ended Mar. 31, 1943-49**  
(Accrued Revenue)

Commodity or Province	1943	1944	1945	1946	1947	1948	1949
	\$	\$	\$	\$	\$	\$	\$
<b>Commodities</b>							
Domestic—							
Amusements.....	12,065,716	13,701,496	14,188,083	15,575,309	17,061,849	17,887,217	2,587,398
Automobiles.....	2,924,340	5,921,754	6,294,009	6,296,296	12,147,218	26,203,014	32,976,441
Beverages.....	14,117,819	19,057,382	19,437,772	16,653,926	18,629,492	23,751,434	27,684,207
Candy and chewing gum.....	8,183,680	12,602,157	12,859,816	11,416,787	12,793,120	17,138,611	19,543,584
Carbonic acid gas.....	198,231	241,647	255,469	284,872	296,050	352,073	332,677
Cigarette papers and tubes.....	3,531,201	1,963,258	4,901,009	4,284,457	6,508,877	6,124,539	6,706,224
Cigars, cigarettes and tobacco.....	26,286,288	54,673,051	62,246,563	70,128,642	76,137,520	68,450,719	77,529,716
Electrical and gas apparatus.....	4,995,015	2,860,270	3,604,480	1,207,069	6,918	2,164,381	3,619,983
Embossed cheques (departmental).....	364,869	346,042	324,670	341,590	370,072	372,698	409,974
Furs.....	3,129,701	4,146,248	4,902,513	4,609,286	2,732,627	2,860,355	3,570,044
Gasoline.....	24,336,052	24,760,040	29,523,926	29,482,040	35,013,531	2,193,131	...
Licences.....	64,986	66,172	71,398	79,841	91,227	90,139	80,007
Lighters.....	162,900	63,380	123,814	285,060	318,822	350,099	403,537
Matches.....	2,661,665	2,767,790	2,968,664	3,291,926	6,162,155	3,498,106	2,994,124
Other manufactures tax.....	3,059,897	9,188,358	10,797,247	13,107,424	15,759,737	14,855,135	16,739,711
Phonographs, radios and tubes.....	1,150,821	408,285	975,035	596,968	2,202,202	4,863,237	3,499,260
Playing cards.....	563,829	627,100	640,785	729,000	691,400	512,414	614,400
Sales, domestic.....	224,289,399	302,755,414	372,428,104	296,610,969	278,824,448	323,670,079	342,075,177
Stamps.....	12,209,804	12,652,793	12,642,984	14,472,033	15,901,819	15,514,256	13,605,236
Sugar.....	14,571,572	12,769,384	11,557,494	9,672,143	10,877,731	10,100,679	...
Toilet preparations.....	4,484,050	5,295,317	6,188,703	6,820,578	7,106,755	6,813,907	7,582,907
Transportation and transmission.....	16,083,059	22,379,096	24,205,479	26,893,391	27,930,562	27,530,884	29,034,392
Wines.....	2,006,816	1,710,217	1,772,375	2,066,109	2,393,718	2,341,585	2,059,639
Penalties and interest.....	189,727	264,524	297,323	221,904	222,078	286,070	291,819
Totals, Domestic.....	381,631,437	511,221,175	603,207,715	535,027,620	547,633,928	577,924,762	593,950,456
Imported.....	124,629,989	161,740,264	134,576,183	75,887,696	61,234,900	84,199,983	55,058,635
<b>Grand Totals<sup>1</sup>.....</b>	<b>506,261,426</b>	<b>672,961,439</b>	<b>737,783,898</b>	<b>610,915,316</b>	<b>608,868,828</b>	<b>662,124,745</b>	<b>649,009,091</b>
<b>Provinces</b>							
Prince Edward Island.....	339,638	513,280	432,082	450,411	537,640	498,170	354,308
Nova Scotia.....	10,701,947	14,057,972	13,546,842	9,498,914	8,816,771	10,409,922	9,712,259
New Brunswick.....	7,506,656	10,632,423	10,653,358	8,230,070	7,815,592	8,721,379	6,092,221
Quebec.....	179,651,152	259,893,903	293,206,071	240,290,038	242,967,151	249,820,294	259,953,961
Ontario.....	251,494,398	319,213,251	352,331,247	292,357,960	279,023,635	306,183,730	311,081,866
Manitoba.....	14,759,663	17,277,555	18,199,488	17,703,441	21,408,741	22,214,291	20,255,931
Saskatchewan.....	4,507,622	5,741,723	6,099,620	5,826,579	6,806,167	6,952,275	5,207,665
Alberta.....	10,919,172	11,965,263	12,548,696	11,712,080	13,878,365	14,071,770	10,760,329
British Columbia.....	25,698,955	32,962,343	30,036,809	24,210,187	26,897,614	31,746,420	24,972,027
Yukon.....	130,361	171,533	185,383	120,262	189,513	202,788	203,284
General for Canada—							
Departmental sales.....	366,036	346,513	324,732	344,925	488,296	616,845	409,974
Miscellaneous.....	470	4,377	4,833	3,815	1,925	3,060	2,332
British post-office parcels.....	85	70	73	191	642	563	2,932
Departmental War Exchange Tax.....	185,271	181,233	214,664	166,443	41,776	...	...

<sup>1</sup> Includes refunds and drawbacks of \$17,549,001 in 1943, \$34,342,147 in 1944, \$194,718,627 in 1945, \$114,005,355 in 1946, \$29,845,228 in 1947, \$10,683,238 in 1948 and \$12,871,403 in 1949.

### Income Tax

The income tax revenue shown in Table 19 represents collections made by the Taxation Division of the Department of National Revenue under the authority of the Income War Tax Act (c. 97, R.S.C. 1927) as amended and the Income Tax Act (11-12 Geo. VI, c. 52).<sup>\*</sup> The Acts cover more than income tax proper, as corporation taxes are coming to be regarded in a different light from those on the income of individuals. Income tax on individuals and on corporations is treated separately in Part II of this Chapter, at pp. 1044-1048.

Details of income tax changes in the Budgets of 1945-46, 1946-47 and 1947-48 are given at pp. 1008-1009 of the 1948-49 Year Book.

In the 1948-49 Budget there were only minor changes in the individual and corporation tax provisions and no changes in basic rates. However, the exemption for Federal succession duties was raised from \$5,000 to \$50,000.

The tax on dividends and interest (Sect. 9B of the Act) is levied at the rate of 5 p.c. on interest paid by Canadian debtors (except provinces and municipal or public bodies) in a currency which is at a premium in excess of 5 p.c. over Canadian funds, and at the rate of 15 p.c. on dividends received by persons who are non-residents of Canada, and on interest received from or credited by Canadian debtors to non-residents, except in the case of Government of Canada or Government of Canada guaranteed bonds, and also on interest received by a non-resident parent company from a Canadian subsidiary, except where an agreement had been entered into prior to Apr. 1, 1933, for the payment of such interest in a currency other than Canadian. The tax also includes fees for copyrights and rights for the use of films, phonograph records and similar devices. The tax on rents and royalties (Sect. 27) is imposed at the rate of 15 p.c. on non-residents in respect of the gross amount of all rents, royalties, etc., for the use in Canada of real or personal property, patents or for anything used or sold in Canada. The gift tax (Sect. 88) is imposed at the rate of 10 p.c. on gifts up to \$5,000 and at rates varying from 11 p.c. to 28 p.c. on gifts from \$5,000 to \$1,000,000 or over. Section references in this paragraph and in Table 19 relate to the Income War Tax Act.

The Budget for the fiscal year ending Mar. 31, 1950, was presented to Parliament on Mar. 22, 1949. Parliament was dissolved before the provisions of the Budget were passed and it was reintroduced to the new Parliament with minor modifications on Oct. 20, 1949. The most significant feature of this Budget was the substantial abatement of personal income and excise taxes.

In the personal income-tax field exemptions were raised for persons with single status from \$750 to \$1,000, for persons with married status from \$1,500 to \$2,000, for children eligible for family allowance from \$100 to \$150, for other dependants from \$300 to \$400. The rates of the graduated rate schedule were substantially lowered.

Provision was made also for the allowance of a credit of 10 p.c. of the amount of dividends received from shares of Canadian taxpaying corporations against the personal income tax of a shareholder.

In the corporation income-tax field the rate of tax on the first \$10,000 of income was reduced from 30 p.c. to 10 p.c. Taken in conjunction with the 10 p.c. tax

<sup>\*</sup> The Income Tax Act which was assented to June 30, 1948 superseded the Income War Tax Act.

credit noted above, this change removed substantially all the double taxation of those corporations whose earnings were not in excess of \$10,000. The rate of tax on corporation income over \$10,000 was raised to 33 p.c. The carry-forward of losses was extended from three years to five years. The regulations on depreciation were changed to recognize obsolescence.

### 19.—Collections under the Income War Tax Act, Years Ended Mar. 31, 1935-49

(Tax and Applicable Section of the Act)

NOTE.—Figures for the years 1919-34 will be found at p. 966 of the 1947 Year Book.

Year	General Income Tax		Tax on Dividends and Interest Sect. 9B	Tax on Rents and Royalties Sect. 27	Gift Tax Sect. 88	Total <sup>1</sup>
	Individuals Sect. 9-1	Corporations Sect. 9-2				
	\$	\$	\$	\$	\$	\$
1935.....	25,201,392	35,790,239	5,816,435	—	—	66,808,066
1936.....	32,788,746	42,518,971	7,207,601	—	194,485	82,709,803
1937.....	35,358,302	58,012,843	8,910,014	—	84,083	102,365,242
1938.....	40,070,942	69,768,605	10,152,088	—	373,897	120,365,532
1939.....	46,591,449	85,185,887	9,903,046	—	345,756	142,026,138
1940.....	45,008,858	77,920,002	11,121,632	—	398,074	134,448,566
1941.....	75,636,231	131,565,710	12,282,259	759,957	292,847	248,143,022 <sup>2</sup>
1942.....	189,237,538	185,835,699	26,642,106	1,626,669	264,258	510,243,017 <sup>3</sup>
1943.....	533,915,059	347,969,723	26,710,946	1,369,851	223,093	910,188,572
1944.....	809,570,762	311,378,714	25,670,804	1,272,389	1,546,633	1,151,757,035 <sup>4</sup>
1945.....	763,896,322	276,403,849	27,052,692	1,546,445	532,599	1,072,758,068 <sup>5</sup>
1946.....	689,506,763	217,833,540	26,823,894	1,485,725	770,369	937,729,273 <sup>6</sup>
1947.....	691,989,231	196,819,253	28,428,143	1,708,003	1,538,888	963,458,245 <sup>7</sup>
1948.....	656,873,403	351,535,006	33,928,935	1,960,093	2,268,845	1,059,848,357 <sup>8</sup>
1949.....	760,151,970	488,549,610	40,965,426	2,480,337	1,632,930	1,297,999,404 <sup>9</sup>

<sup>1</sup> These figures include the estimated refundable portion and therefore do not agree with the totals given in Table 10.

<sup>2</sup> Includes national defence tax amounting to \$27,672,018.

<sup>3</sup> Includes national

defence tax amounting to \$106,636,747.

<sup>4</sup> Includes 1942 deferred tax amounting to \$2,317,733.

<sup>5</sup> Includes 1942 deferred tax amounting to \$3,326,161.

<sup>6</sup> Includes 1942 deferred tax amounting to

\$1,308,982.

<sup>7</sup> Includes 1942 deferred tax amounting to \$1,002,027 and tax on private companies

amounting to \$41,972,700.

<sup>8</sup> Includes 1942 deferred tax amounting to \$685,967 and tax on private

companies amounting to \$12,596,108.

<sup>9</sup> Includes 1942 deferred tax amounting to \$778,617 and tax on

private companies amounting to \$3,440,514.

### Subsection 4.—Subsidies and Loans to Provinces

**Subsidies.**—By the provisions of the British North America Act and subsequent arrangements entered into from time to time, the Federal Government makes certain annual payments to the provinces: these are summarized as follows:—

**Interest on Debt Allowances.**—By the terms of the union of the provinces at Confederation in 1867, the Federal Government assumed all the outstanding debts and liabilities of the provinces and undertook to pay, except in the case of Ontario and Quebec, interest at 5 p.c. on the amounts by which the actual per capita indebtedness of the provinces fell short of a basic debt allowance calculated at approximately \$25 per capita. On the subsequent entry of additional provinces into Confederation, similar arrangements were effected regarding the assumption of their pre-Confederation indebtedness. From time to time, adjustments have been made in the basis of calculating the debt allowances of provinces; moreover, the Federal Government pays interest at 5 p.c. per annum on the amounts by which the actual debts of the provinces, on their entry into Confederation, fell short of the allowed debts as adjusted. The aggregate annual payment by the Federal Government to the provinces in respect of interest on debt allowances is \$1,609,386.



*Allowances for Governments and Legislatures.*—Under the terms of the union, annual specific grants were made to the various provinces for the support of their governments and legislatures. These amounts vary with the population of the provinces, according to the following scale approved in 1907:—

Where population is—				\$
Under 150,000.....				100,000
150,000, but does not exceed 200,000.....				150,000
200,000, " " 400,000.....				180,000
400,000, " " 800,000.....				190,000
800,000, " " 1,500,000.....				220,000
Over 1,500,000.....				240,000

Aggregate annual allowances presently paid under this head amount to \$1,810,000.

*Allowances per Head of Population.*—Under the British North America Act of 1867, a grant of 80 cents per head of population was allowed to each province. The British North America Act of 1907 provided that the grant would be paid to each province at the rate of 80 cents per head up to a population of 2,500,000, and at the rate of 60 cents per head for so much of the population as exceeded that number. Such allowances paid to the provinces in the year ended Mar. 31, 1949, amounted to \$8,731,917.

*Special Grants.*—In the case of certain of the provinces, grants have been added to the original scale of subsidies in view of special circumstances obtaining, which, for the year ended Mar. 31, 1949, amounted in the aggregate to \$2,468,380 as set forth below:—

*Prince Edward Island.*—A special grant of \$195,000 less a deduction of \$39,120 (net grant of \$155,880).

*New Brunswick.*—An annual grant of \$150,000 since 1875 in consideration of the repeal of lumber duties reserved to the Province by the B.N.A. Act of 1867.

*Manitoba.*—A special grant on the basis of population amounting at present to \$562,500 per annum.

*Saskatchewan and Alberta.*—An annual sum as compensation for loss of public lands revenue, based on their respective populations and amounting at present to \$750,000 for Saskatchewan and \$750,000 for Alberta.

*British Columbia.*—A special grant amounting at present to \$100,000 per annum.

## 20.—Subsidy Allowances to Provincial Governments, Years Ended Mar. 31, 1943-49

Province	1943	1944	1945	1946	1947	1948	1949
	\$	\$	\$	\$	\$	\$	\$
Prince Edward Island.....	381,932	381,932	381,932	381,932	381,932	656,932	656,932
Nova Scotia.....	708,958	705,140	705,140	705,140	705,140	2,005,140	2,005,140
New Brunswick.....	735,605	732,386	732,386	732,386	732,386	1,632,386	1,632,386
Quebec.....	2,873,935	2,866,590	2,866,590	2,866,590	2,866,590	2,866,590	2,866,590
Ontario.....	3,173,621	3,155,007	3,155,007	3,155,007	3,155,007	3,155,007	3,155,007
Manitoba.....	1,722,475	1,717,879	1,716,987	1,717,284	1,709,043	1,722,202	1,715,623
Saskatchewan.....	2,052,162	2,092,169	2,028,578	2,049,775	2,034,650	10,079,651	2,041,525
Alberta.....	1,801,031	1,794,810	1,855,207	1,835,075	1,794,561	10,272,767	2,018,039
British Columbia.....	1,040,366	1,003,440	1,003,440	1,003,440	1,003,440	1,003,440	1,003,440
<b>Totals.....</b>	<b>14,490,085</b>	<b>14,449,353</b>	<b>14,445,267</b>	<b>14,446,629</b>	<b>14,382,750</b>	<b>33,394,115</b>	<b>17,094,682</b>

## 21.—Subsidy Allowances to Provincial Governments, July 1, 1867 to Mar. 31, 1949

Province	Allowances for Government	Allowances on Basis of Population	Special Grants <sup>1,2</sup>	Interest on Debt Allowances <sup>2</sup>	Total <sup>3</sup>
	\$	\$	\$	\$	\$
Prince Edward Island.....	5,220,000	6,534,378	7,552,503	3,145,900	22,452,781
Nova Scotia.....	10,380,000	29,882,904	3,426,980	3,974,271	47,664,155
New Brunswick.....	9,740,000	22,991,469	13,830,000	1,794,609	48,356,078
Quebec.....	12,880,000	117,996,437	—	7,108,702	137,985,139
Ontario.....	13,280,000	142,172,800	—	7,022,321	162,475,121
Manitoba.....	9,585,000	25,445,920	28,331,733	19,074,382	82,437,035
Saskatchewan.....	8,796,667	26,073,035	36,312,500	17,836,500	89,018,702
Alberta.....	8,171,667	21,430,737	32,125,000	17,836,500	79,563,904
British Columbia.....	9,220,000	21,299,550	8,800,000	2,283,567	41,603,117
<b>Totals.....</b>	<b>87,273,334</b>	<b>413,827,230</b>	<b>130,378,716</b>	<b>80,076,752</b>	<b>711,556,032</b>

<sup>1</sup> See text at p. 1020.<sup>2</sup> Allowances in lieu of debt.<sup>3</sup> Includes "Additional Special Grants" (see text following) since 1946.

*Additional Special Grants.*—Additional special grants were voted annually to the Maritime Provinces, Manitoba, Saskatchewan and British Columbia up to 1941.

These additional special grants were suspended with the coming into force of the Dominion-Provincial Taxation Agreements. They were paid in 1947 and later years in the case of the three Maritime Provinces under the provisions of the Maritime Additional Subsidies Act, 1942.

*Dominion-Provincial Taxation Agreements.*—The Dominion-Provincial Tax Rental Agreements Act, 1947, authorized the Federal Government to enter into Agreements with the provinces by which, in return for compensation, the Provincial Governments would agree to refrain from levying certain direct taxes for a period of five years. These Agreements are successors to the Wartime Agreements which have lapsed (see pp. 900-901 of the 1946 Year Book). By the end of 1949, seven provinces—Prince Edward Island, Nova Scotia, New Brunswick, Manitoba, Saskatchewan, Alberta, and British Columbia—had made new Agreements with the Federal Government and negotiations were taking place with Newfoundland. Yukon Territory made an Agreement similar to those made by the provinces.

The main purposes of these Agreements are to establish a more equitable system of taxation throughout Canada by reducing duplication of direct taxation and duplication of machinery for the collection of direct taxes, to give a greater measure of stability to the revenues of the provinces, and to enable the Federal Government, along with the Provincial Governments, to carry out national policies intended to maintain high levels of employment and production.

The Agreements continue the basic provisions of the Wartime Taxation Agreements, under which the provinces and their municipalities withdrew their income taxes, corporation income taxes and corporation taxes in return for compensation from the Federal Government (pp. 900-901 of the 1946 Year Book). There are, however, some additional provisions in the new Agreements which have resulted from the negotiations carried on between the governments in 1945 and 1946 at the Dominion-Provincial Conference meetings and since the Budget offer of June, 1946. The main features of this offer which have been embodied in the Agreements are outlined at pp. 883-884 of the 1946 Year Book.

The provinces are required, under the Agreements, to refrain from levying certain direct taxes, with the exception that they are permitted to impose a corporation income tax of 5 p.c. on the income of corporations attributable to their operations in the particular province. The revenue from this tax is to go to the individual province with a corresponding reduction in the amount of compensation paid to that province. The purpose of this provision is to assure as nearly as possible a uniform level of corporation income tax throughout Canada as between the agreeing and non-agreeing provinces. Under the Agreements it is provided, however, that a deduction will be made from the payment to the province corresponding to the amount of revenue that such a tax would have yielded even if the province does not impose the tax. The Agreements contain a set of rules by which the income of corporations is allocated to the various provinces in which they carry on business and further provide that this tax must be imposed under the same general provisions as are in the Income War Tax Act and the Income Tax Act, and that it will be administered on behalf of the provinces by the Federal Government and at the expense of the Federal Government.

Another provision concerns succession duties, a field not included in the War-time Taxation Agreements. The provinces are now given the alternative of withdrawing from this field or remaining in it. If they withdraw, they receive the full amount of compensation otherwise payable under the Agreements (in the determination of which succession duties revenue was taken into account) but, if they remain, their payment is reduced by the amount of revenue loss which the Federal Government suffers, through the credit allowed against the Federal Government duty for provincial duties on the same succession. All seven of the provinces which have negotiated Agreements with the Federal Government have taken the first alternative and withdrawn from the succession duties field.\*

The Agreements do not prevent the imposition of royalties and rentals on natural resources by a province since such royalties and rentals are not regarded as taxes when they are of a nature conforming with the definitions set forth in the Agreements. The imposition of taxes on income derived from logging and mining operations, as defined in the Agreements, is allowed without any deduction from the payment to the province.

The significant differences between the 1946 Budget offer and the present Agreements are as follows:—

- (1) the provinces may choose between two methods of determining the amount of their guaranteed minimum annual payments (see p. 1023);
- (2) the total guaranteed minimum annual payments to the provinces under these new methods are increased by \$25,100,000 to \$206,500,000;
- (3) these new guaranteed minimum annual payments are used as the bases for calculating the annual payments which are adjusted for increases in provincial population and gross national production per capita;
- (4) in the year following the termination of the Agreements, provincial taxpayers are to be allowed by the Federal Government tax credits of a maximum of 5 p.c. of the federal income tax, 50 p.c. of federal succession duties, and one-seventh of federal corporation income tax for taxes imposed by their Provincial Governments.

The guaranteed minimum annual payments are now computed in one of two ways. Under the first option a province may elect as a base \$12.75 per capita of its 1942 population, plus 50 p.c. of its income tax and corporation tax revenue in 1940, plus statutory subsidies payable in 1947; under the second it may choose \$15 per capita of its 1942 population plus statutory subsidies payable in 1947.

\* See Succession Duties, pp. 1048-1054.



A special arrangement was made for Prince Edward Island which is to receive a guaranteed minimum payment of \$2,100,000. This is slightly in excess of the amount determined by either of the two formulas. The guaranteed minimum annual payments to the provinces under the most favourable option and the estimated 1948 payments are shown in Table 22. The guaranteed minimum annual payment to the Yukon is \$89,365 and the estimated 1949 payment is \$148,630.

The actual amount payable in any one year is calculated according to the following method. The minimum payment is adjusted for changes in provincial population and gross national product per capita, as compared with the base year 1942, for each of the three calendar years immediately preceding the fiscal year of payment. These three amounts are then averaged, and the resultant is the amount payable. If, in any of the three calendar years concerned, the amount calculated is less than the amount of the minimum payment, then the amount of the minimum payment is substituted. This method of computing the annual payments ensures that the revenues of the province will increase as the provincial population and gross national product per capita increase, and at the same time guarantees that the province will, at no time in the period covered by the Agreement, receive less than the stated minimum.

**22.—Guaranteed Minimum Annual Payments to Provinces<sup>1</sup> under Most Favourable Option and 1949 Payments**

Province and Option	Guaranteed Minimum Annual Payments <sup>2</sup>	1949 Payments <sup>2</sup>
	\$'000	\$'000
Prince Edward Island.....	2,100	2,620
Nova Scotia (Second).....	10,870	13,754
New Brunswick (First).....	8,773	11,161
Manitoba (First).....	13,540	16,556
Saskatchewan (Second).....	15,291	17,517
Alberta (First).....	14,228	17,657
British Columbia (First).....	18,120	26,125
<b>Totals.....</b>	<b>82,922</b>	<b>105,390</b>

<sup>1</sup> The Governments of Quebec and Ontario have not made agreements with the Federal Government. The payments for these Provinces (First Option) would be: Quebec, \$56,382,000 and \$71,282,000; Ontario, \$67,158,000 and \$84,001,000.

<sup>2</sup> Subject to deduction of statutory subsidies. See Table 20, p. 1020.

Under an offer ancillary to the Agreements, but which applies to all provinces, whether agreeing or not, the Federal Government will pay to the province one-half of the federal corporation income tax on income of corporations derived from generating and/or distributing to the public, electric energy, gas or steam where this is the main business of the corporation.

**Subsection 5.—National Debt**

The gross national debt of Canada on Mar. 31, 1914, was \$544,391,369 as against assets of \$208,394,519, leaving a net debt of \$335,996,850. This was a comparatively small debt; it was incurred almost altogether for public works of general utility which, like the Intercolonial and transcontinental railways and the canal system, remained assets, though perhaps not realizable assets, of the nation, or was expanded by the subsidizing of enterprises which, like the Canadian Pacific Railway, though not government-owned, assisted greatly in extending the area of

settlement as well as the productive and, therefore, the taxable capacity of the country. Broadly speaking, the debt was incurred for productive purposes. Also, it was mainly held outside the country, the principal of the Federal Government funded debt payable at London, England, being \$302,842,485 on Mar. 31, 1914, as against only \$717,453 payable in Canada.

From 1914 to 1920, the gross debt increased by almost \$2,500,000,000 to a total of \$3,042,000,000 due to heavy war and post-war expenditures and, while there was a slight reduction to a low point of \$2,544,586,411 at Mar. 31, 1930, additional expenditures during the depression years resulted in a gross debt of \$3,710,610,593 by Mar. 31, 1939.

From 1939 to 1946 there was an increase of \$15,249,235,590, incurred mainly for war purposes, bringing the total gross debt to \$18,959,846,183 at the end of March, 1946. After deduction of active assets held by the Government, the net debt showed an increase of \$10,268,846,135 during this period, amounting to \$13,421,405,449 at the end of March, 1946. At the end of March, 1949, total gross debt had been reduced to \$16,950,403,795 and net debt to \$11,776,134,152.

The portion of the funded debt payable in foreign currencies decreased steadily and sharply during the war years, as was inevitable under conditions where almost the entire amount of Canada's war financing was carried out through domestic operations. Of the total funded debt and treasury bills outstanding as at Mar. 31, 1949, amounting to \$15,585,036,580, less than 2 p.c. was payable outside Canada: \$9,256,258 payable at London and \$298,000,000 at New York.

### 23.—Summary of the Public Debt of Canada and Interest Payments thereon, Years Ended Mar. 31, 1935-49

NOTE.—Statistics for the years 1867-99 are given at pp. 775-776 of the 1942 Year Book; those for 1900-13, at p. 944 of the 1945 edition; and those for 1914-34 at p. 972 of the 1947 edition.

Year	Gross Debt	Active Assets	Net Debt	Net Debt Per Capita <sup>1</sup>	Increase or Decrease of Net Debt During Year	Interest Paid on Debt	Interest Received from Active Assets	Interest Paid Per Capita <sup>1</sup>
	\$	\$	\$	\$	\$	\$	\$	\$
1935...	3,205,956,369	359,845,411	2,846,110,958	262.44	116,132,817	138,533,202	10,963,478	12.77
1936...	3,431,944,027	425,843,510	3,006,100,517	274.53	159,989,559	134,549,169	10,614,125	12.29
1937...	3,542,521,139	458,568,937	3,083,952,202	279.22	77,851,685	137,410,345	11,231,035	12.44
1938...	3,540,237,614	438,570,044	3,101,667,570	278.13	17,715,368	132,117,422	13,120,523	11.85
1939...	3,710,610,593	558,051,279	3,152,559,314	279.80	50,891,744	127,995,617	13,163,015	11.36
1940...	4,028,728,606	757,468,959	3,271,259,647	287.43	118,700,333	129,315,442	13,393,432	11.36
1941...	5,018,928,037	1,370,236,588	3,648,691,449	317.08	377,431,802	139,178,670	14,910,554	12.10
1942...	6,648,823,424	2,603,602,263	4,045,221,161	347.11	396,529,712	155,017,901	21,748,701	13.30
1943...	9,228,252,012	3,045,402,911	6,182,849,101	523.44	2,137,627,940	188,556,249	41,242,237 <sup>2</sup>	15.96
1944...	12,359,123,230	3,619,038,337	8,740,084,893	729.86	2,557,235,792	242,681,180	48,281,313 <sup>2</sup>	20.27
1945...	15,712,181,527	4,413,819,509	11,298,362,018	932.29	2,558,277,125	318,994,821	60,749,186 <sup>2</sup>	26.32
1946...	18,959,846,183	5,538,440,734	13,421,405,449	1,090.55	2,123,043,431	409,134,502	70,914,626 <sup>2</sup>	33.24
1947...	17,698,195,740	4,650,439,192	13,047,756,548	1,037.02	-373,648,901	464,394,876 <sup>2</sup>	69,438,880 <sup>2</sup>	36.91
1948...	17,197,348,981	4,825,712,088	12,371,636,893	960.31	-676,119,656	455,455,204	75,799,912 <sup>2</sup>	35.35
1949...	16,950,403,795	5,174,269,643	11,776,134,152	869.15	-595,502,741	465,137,958 <sup>2</sup>	107,888,905 <sup>2</sup>	34.33

<sup>1</sup> Based on the official estimates of population given at p. 155.

<sup>2</sup> This amount represents return on investments, which includes interest on investments, profits of Bank of Canada and Central Mortgage Bank and other items.

<sup>3</sup> The apparent increase in interest paid is due to the accrued interest on refundable taxes having been charged in the year of repayment.

**Interest-Bearing Debt.**—The interest-bearing debt of Canada has shown a sharp increase since 1939, amounting to \$16,363,000,000 at Mar. 31, 1949, as compared with \$3,658,000,000 at the same date in 1939. The average rate of interest on this debt continued downward during the war years, reaching the low point of 2.547 p.c. at Mar. 31, 1945. Slight increases in 1946, 1947 and 1948 were recorded, and the rate stood at 2.710 p.c. at Mar. 31, 1948, but decreased slightly to 2.701 at Mar. 31, 1949. This is in contrast with the experience of the First World War, when the average interest rate on the direct debt of the nation rose from 3.368 p.c. at Mar. 31, 1913, to a high point of 5.164 p.c. at Mar. 31, 1922.

During the fiscal year ended Mar. 31, 1939, interest on the public debt absorbed about 26 p.c. of total Government receipts. Interest on the debt in late years has absorbed a smaller portion of revenues, amounting to less than 17 p.c. in the year ended Mar. 31, 1949.

**24.—Interest-Bearing Debt, Annual Interest Charges thereon and Average Rates of Interest, as at Mar. 31, 1935-49**

NOTE.—Statistics for the years 1913-34 are given at p. 977 of the 1947 Year Book.

Year	Bonds, Debentures, and Treasury Bills	Annual Interest Charges on Bonds, Debentures, and Treasury Bills	Average Interest Rate on Bonds, Debentures, and Treasury Bills	Post Office Savings Bank Deposits, Trust and Other Funds	Annual Interest on Savings Bank Deposits and Other Funds	Total Interest-Bearing Debt <sup>1</sup>	Annual Interest Charge	Average Rate of Interest
	\$	\$	p.c.	\$	\$	\$	\$	p.c.
1935...	3,061,955,821	127,074,870	4.150	171,554,957	6,683,560	3,233,510,778	133,758,430	4.136
1936...	3,265,314,332	128,598,908	3.938	106,197,897	7,679,285	3,461,512,229	136,278,193	3.937
1937...	3,337,358,832	125,033,381	3.748	224,157,683	8,798,557	3,561,516,515	133,891,938	3.759
1938...	3,314,558,032	117,062,907	3.532	248,176,039	9,771,812	3,562,734,071	126,834,719	3.560
1939...	3,385,722,462	119,198,476	3.521	272,692,286	9,879,428	3,658,414,748	129,077,904	3.528
1940...	3,695,705,919	125,575,106	3.398	288,066,211	10,726,716	3,983,772,130	136,301,822	3.421
1941...	4,372,007,319	133,970,676	3.064	317,332,308	12,488,959	4,689,339,627	146,459,635	3.123
1942...	5,865,280,821	170,218,719	2.902	343,238,738	13,522,857	6,208,519,559	183,741,576	2.960
1943...	7,893,493,950 <sup>2</sup>	204,896,794	2.596	377,869,660	14,779,052	8,271,363,610	219,675,846	2.656
1944...	10,936,847,068 <sup>2</sup>	278,792,582	2.549	415,629,678	16,251,031	11,352,476,746	295,043,613	2.599
1945...	13,983,763,575 <sup>2</sup>	351,589,751	2.514	458,079,901	18,304,039	14,441,843,476	369,893,790	2.547
1946...	16,807,177,765	436,223,927	2.595	494,177,833	19,517,520	17,301,355,598	455,741,447	2.634
1947...	16,541,900,182	437,853,818	2.647	570,226,510	22,538,419	17,112,126,692	460,392,237	2.690
1948...	15,957,382,594	424,089,017	2.658	674,555,372	26,625,452	16,631,937,966	450,714,469	2.710
1949...	15,585,036,580	411,474,520	2.640	778,259,106	30,584,639	16,363,295,686	442,059,159	2.701

<sup>1</sup> Includes bonds purchased and held by the Treasury for sinking funds. portion of income tax and excess profits tax.

<sup>2</sup> Includes refundable

**Funded Debt Operations.**—Conversions and other national debt operations carried out between 1914 and 1930 are dealt with at pp. 842-843 of the 1933 Year Book; those between 1931 and 1934 at pp. 905-907 of the 1934-35 Year Book; those of the fiscal years 1935 to 1946 in the respective Year Books for those years and those for 1947 and 1948 at p. 988 of the 1948-49 edition.

**Treasury Bills.**—Since 1934 a market for short-term treasury bills that has proven highly satisfactory has been built up in Canada. Each issue, with two exceptions (where the bills were sold direct to the Bank of Canada), has been offered for public tender. Lists of treasury bills sold by public tender for the fiscal years ended 1934-46 appear in the respective Year Books beginning with the 1937 edition. Details of the issues in continuation of the list published at p. 778 of the 1942 Year Book may be obtained on request.



## 25.—Funded Debt and Treasury Bills of Canada, as at Mar. 31, 1949

NOTE.—Certain qualifications as to redemption prior to maturity govern most of these issues; they are explained fully in the "Public Accounts".

Date of Maturity	Description	Rate	Where Payable	Amount of Loan Outstanding		Annual Interest Charges	
				\$	cts.	\$	cts.
1949—May 1	Six-Month Notes.....	0.625	Canada	200,000,000	00	1,250,000	00
July 1	Debentures—School Lands....	4	Canada	33,293,470	85	1,331,738	83
Sept. 1	Six-Month Notes.....	0.75	Canada	550,000,000	00	4,125,000	00
Sept. 2	Deposit Certificates.....	0.75	Canada	100,000,000	00	750,000	00
Nov. 1	Eighth Victory Loan, 1945....	1½	Canada	267,800,000	00	4,686,500	00
1950—Feb. 1	First War Loan, 1940.....	3½	Canada	49,991,850	00	1,624,735	13
Mar. 1	Loan of 1948.....	1½	Canada	325,000,000	00	4,875,000	00
Nov. 1	Loan of 1946.....	1½	Canada	400,000,000	00	7,000,000	00
Nov. 1	Ninth Victory Loan, 1945....	1½	Canada	335,690,000	00	5,874,575	00
1951—Feb. 1	First War Loan, 1940.....	3½	Canada	50,250,000	00	1,625,000	00
June 15	Victory Loan, 1941.....	3	Canada	649,969,592	50	19,306,027	50
Nov. 1	Loan of 1948.....	1½	Canada	500,000,000	00	8,750,000	00
1952—Feb. 1	First War Loan, 1940.....	3½	Canada	50,500,000	00	1,625,000	00
Oct. 1	Second War Loan, 1940.....	3½	Canada	324,945,700	00	9,748,371	00
1954—Mar. 1	Second Victory Loan, 1942....	3	Canada	676,355,489	00	20,089,767	00
1955—May 1	Loan of 1934.....	3½	London	3,833,893	18	124,601	53
June 1	Loan of 1935, dated June 1....	3	Canada	40,000,000	00	1,200,000	00
June 1	Loan of 1935, dated Nov. 15....	3	Canada	55,000,000	00	1,650,000	00
1956—Nov. 1	Third Victory Loan, 1942.....	3	Canada	855,607,410	50	25,414,081	50
Nov. 1	Canada Savings Bonds, dated Nov. 1, 1946.....	2½	Canada	327,356,650	00	9,002,307	83
1957—May 1	Fourth Victory Loan, 1943....	3	Canada	1,111,261,650	00	33,337,849	50
Nov. 1	Canada Savings Bonds, dated Nov. 1, 1947.....	2½	Canada	187,652,800	00	5,160,452	00
1958—June 1	Loan of 1938-39.....	3	Canada	88,200,000	00	2,646,000	00
Sept. 1	Loan of 1933.....	4	London	2,574,936	32	102,997	45
Nov. 1	Canada Savings Bonds, dated Nov. 1, 1948.....	2½	Canada	235,258,360	26	6,469,604	92
1959—Jan. 1	Fifth Victory Loan, 1943.....	3	Canada	1,197,324,750	00	35,919,742	50
Nov. 1	Conversion Loan, 1931.....	4½	Canada	289,693,300	00	13,036,198	50
1960—June 1	Sixth Victory Loan, 1944.....	3	Canada	1,165,300,350	00	34,959,010	50
Oct. 1	Loan of 1930.....	4	New York	100,000,000	00	4,000,000	00
1961—Jan. 15	Loan of 1936.....	3½	New York	48,000,000	00	1,560,000	00
1962—Feb. 1	Seventh Victory Loan, 1944....	3	Canada	1,315,639,200	00	39,469,176	00
1963—July 1	Loan of 1938.....	3½	London	2,847,428	94	92,541	44
Aug. 1	Loan of 1948-63.....	3	New York	150,000,000	00	4,500,000	00
Oct. 1	Eighth Victory Loan, 1945....	3	Canada	1,295,819,350	00	38,874,580	50
1966—June 1	Loan of 1936.....	3½	Canada	54,703,000	00	1,777,847	50
Sept. 1	Ninth Victory Loan, 1945....	3	Canada	1,691,796,700	00	50,753,901	00
Perpetual	Loan of 1936.....	3	Canada	55,000,000	00	1,650,000	00
1950—June 15	Non-Interest Bearing Certificates.....	3	Canada	271,654	04	...	
Various	War Savings Certificates.....	3	Canada	177,682,631	66	5,330,478	95
Various	Refundable portion of excess profits tax (estimated).....	...	Canada	170,416,412	68	...	
1949—Apr. 8	Treasury Bills.....	0.411	Canada	75,000,000	00	308,250	00
Apr. 22	Treasury Bills.....	0.411	Canada	75,000,000	00	308,250	00
May 6	Treasury Bills.....	0.412	Canada	75,000,000	00	309,000	00
May 27	Treasury Bills.....	0.415	Canada	75,000,000	00	311,250	00
June 10	Treasury Bills.....	0.424	Canada	75,000,000	00	318,000	00
June 24	Treasury Bills.....	0.451	Canada	75,000,000	00	338,250	00
<b>Totals, Funded Debt and Treasury Bills.....</b>				<b>15,585,036,579</b>	<b>93</b>	<b>411,586,086</b>	<b>13</b>
Payable in Canada.....				15,277,780,321	49	401,205,945	71
Payable in New York.....				298,000,000	00	10,060,000	00
Payable in London.....				9,256,258	44	320,140	42

26.—Federal Government Domestic and Other Loan Flotations, Year Ended  
Mar. 31, 1949

Item	Interest Rate	Price to Govern- ment	Yield at Price to Govern- ment	Issued for Cash	Issued as Renewals or Conversions	Total Amount Issued
	p.c.	\$	p.c.	\$	\$	\$
<b>Payable in Canada</b>						
<b>Issued to Chartered Banks—</b>						
Deposit Certificates, Sept. 3, 1948– Mar. 4, 1949.....	1	100-00	0-625	—	100,000,000	100,000,000
Bonds, Nov. 1, 1948–Nov. 1, 1951.....	1	100-00	1-750	—	250,000,000	250,000,000
Deposit Certificates, Mar. 4, 1949– Sept. 2, 1949.....	3	100-00	0-750	—	100,000,000	100,000,000
<b>Issued to Bank of Canada—</b>						
Treasury Notes, May 1, 1948–Nov. 1, 1948.....	3	100-00	0-625	—	200,000,000	200,000,000
Treasury Notes, Sept. 1, 1948–Mar. 1, 1949.....	1	100-00	0-625	—	550,000,000	550,000,000
Bonds, Nov. 1, 1948–Nov. 1, 1951.....	1	100-00	1-750	—	250,000,000	250,000,000
Treasury Notes, Nov. 1, 1948–May 1, 1949.....	3	100-00	0-625	—	200,000,000	200,000,000
Treasury Notes, Mar. 1, 1949–Sept. 1, 1949.....	3	100-00	0-750	—	550,000,000	550,000,000
<b>Issued to General Public—</b>						
Canada Savings Bonds, Series III (net), Nov. 1, 1948–Nov. 1, 1953.....	2½	99-375	2-820	236,064,000	—	236,064,000
<b>Issued to Prairie Provinces—</b>						
Debentures, July 1, 1948–July 1, 1949..	4	100-00	4	—	33,293,471	33,293,471
<b>Totals, Issues Payable in Canada...</b>	...	...	...	<b>236,064,000</b>	<b>2,333,293,471</b>	<b>2,469,357,471</b>
<b>Payable in United States</b>						
Issued to Export-Import Bank.....	2½ <sup>1</sup>	100-00	2-500	90,000,000	—	90,000,000 <sup>2</sup>
Issued to Insurance Companies, Aug. 1, 1948–Aug. 1, 1963.....	3	99-90	3-010	10,000,000	140,000,000	150,000,000 <sup>2</sup>
<b>Totals, Issues Payable in United States.....</b>	...	...	...	<b>100,000,000</b>	<b>140,000,000</b>	<b>240,000,000</b>
<b>Grand Totals, 1949.....</b>	...	...	...	<b>336,064,000</b>	<b>2,373,293,471</b>	<b>2,709,357,471</b>

<sup>1</sup> In addition to the interest charge, the loan from the Export-Import Bank carries a commitment charge of 0.5 p.c. on the unutilized portion. <sup>2</sup> Payable in United States dollars.

**Guaranteed Debt.**—Besides the direct debt of the Federal Government, already dealt with, there are also large indirect obligations, arising mainly out of the guarantee of securities, by the Federal Government, of the railway lines that now form the Canadian National Railways, and the subsequent extensions thereof. Together with these are other small indirect obligations, originating in the Government's guarantees of the bonds of the Canadian National Steamship services and of the bonds of the Harbour Commissions, issued in the main for harbour improvements. Since 1932, guarantees of certain bank loans have been made under the various Relief Acts. With the commencement of business of the Bank of Canada on Mar. 11, 1935, the guarantee [authorized by Sect. 27 (6) of the Bank of Canada Act] of the deposit required to be maintained in the Bank of Canada by every chartered bank came into force. This guarantee must be implemented "in the event of the property and assets of the Bank being insufficient to pay its liabilities, and if the Bank suspends payment of any of its liabilities".

For full details of other guarantees also outstanding at Mar. 31, 1949, see Schedule "V" to the "Public Accounts" for 1949.

### 27.—Guaranteed Debt of the Federal Government (Amounts Held by the Public), as at Mar. 31, 1935-49

NOTE.—Figures for the years 1914-23 are given at p. 837 of the 1943-44 Year Book; those for the years 1924-34 at p. 978 of the 1947 Year Book.

Year	Railways, Guaranteed as to Principal and Interest	Railways, Guaranteed as to Interest Only	Canadian National Steam- ships	Harbour Com- missions	Other Guarantees	Bank of Canada	Total
	\$	\$	\$	\$	\$	\$	\$
1935....	740,117,976	216,207,142	9,400,000	21,601,481	104,525,860	149,028,902	1,240,881,361
1936....	747,366,632	216,207,142	9,400,000	21,576,481	96,044,370	188,202,917	1,278,797,542
1937....	756,163,072	216,207,142	9,400,000	21,565,595	14,836,167	194,275,314	1,212,447,290
1938....	803,740,048	216,207,142	9,400,000	21,260,595	18,399,635 <sup>1</sup>	194,859,595	1,263,867,015
1939....	838,658,616	216,207,142	9,400,000	21,200,338	87,617,198 <sup>1</sup>	205,641,646	1,378,724,940
1940....	837,708,753	216,207,141	9,400,000	21,163,338	68,430,115 <sup>1</sup>	202,324,405	1,355,233,752
1941....	836,398,498	117,072,699	9,400,000	21,145,182	121,802,817 <sup>1</sup>	207,994,267	1,313,813,463
1942....	755,223,525	33,075,010	9,400,000	21,143,182	136,112,799 <sup>1</sup>	241,931,985	1,196,886,501
1943....	675,957,496	10,505,633	9,400,000	21,046,682	90,604,364 <sup>1</sup>	280,983,307	1,068,497,532
1944....	659,921,136	9,116,527	9,400,000	21,005,682	53,712,958 <sup>1</sup>	359,158,155	1,112,314,458
1945....	567,810,980	8,495,920	9,400,000	20,958,182	84,729,879 <sup>1</sup>	422,029,434	1,113,424,395
1946....	502,265,560	8,358,001	9,400,000	20,958,182	9,188,294	518,135,599	1,068,305,636
1947....	528,505,889	8,309,454	9,400,000	20,739,182	14,724,473	536,264,805	1,117,943,803
1948....	483,502,963	8,304,100	9,400,000	20,739,182	20,631,122	519,211,261	1,061,788,633
1949....	518,500,224	6,985,175	9,400,000	19,756,282	28,718,353	540,250,731	1,123,610,765

<sup>1</sup> The main item in this category is the guarantee of bank advances to the Canadian Wheat Board; does not include indeterminate amounts and amounts not yet determined.

## Section 3.—Provincial Public Finance\*

Revenues and expenditures presented in this Section do not agree with those shown on Tables 3 and 4 of this Chapter because of differences in the methods used to compute 'net' figures.

Commencing with 1946 the statistics appearing in this section have been prepared on a new basis not strictly comparable with those given for previous years. The classifications of revenues and expenditures are presented in more detail than heretofore and certain of the former major classifications have been eliminated or redistributed. In the case of those tables dealing with debt the totals are comparable with previous years but the classification has been revised. Data on the revised basis are available at present only for the year 1946 but it is anticipated that comparable statistics for later years will be complete before the publication of the 1951 Year Book.

In order to prepare comparable statistics it is essential that data be presented, to the greatest possible extent, in terms of uniform categories. In many instances, activities pertinent to a specific function are excluded by some Provincial Governments from their ordinary account whereas similar activities are included by other provinces. The special or administrative funds of this nature so excluded are therefore added to provincial ordinary account to arrive at 'general' revenues and

\* Revised in the Public Finance Division, Dominion Bureau of Statistics. Years referred to throughout this Section are fiscal years ended nearest Dec. 31 of year stated.



expenditures. For this reason it is obvious that total revenues and expenditures presented herein will differ considerably from those shown in provincial public accounts.

Fiscal periods dealt with are as nearly coincident as is possible in view of the variations in provincial fiscal year-ends. For example, in 1946 fiscal year-ends were as follows: Nova Scotia, Nov. 30, 1946; New Brunswick, Oct. 31, 1946; and all other provinces, Mar. 31, 1947. It should be noted also that the figures for Manitoba and Saskatchewan in 1946 cover a fiscal period of only eleven months. Both these provinces changed their fiscal year-ends from Apr. 30 to Mar. 31.

### Subsection 1.—Revenues and Expenditures of Provincial Governments

Tables 28, 29 and 30 present a general summary of provincial government finance by combining ordinary and capital account revenues and expenditures on a net basis. These tables provide a more valid comparison than those based on ordinary account alone because they eliminate incomparabilities that arise through variations between provinces and between years in the types of expenditure made from capital account. In Table 28, 'Net General Revenues and Net Combined General and Capital Expenditures', subject to changes in procedure which follow, has the same meaning as the heading which appeared over this table in the 1948-49 Year Book. 'Net General Revenues' is arrived at by deducting from 'Gross General Revenues' in Table 31: (a) all institutional revenues, (b) interest, premium, discount and exchange and, (c) grants-in-aid and shared-cost contributions received from other governments. While the surplus position is the same in both the gross and net presentation, the former tends to emphasize the gross administrative burden of services and the latter shows the net cost of these services. When calculating 'Net Combined General and Capital Expenditures', amounts similar to the deductions from revenue described above are deducted from the pertinent function of expenditure, and all capital revenues are offset against gross capital expenditures. It follows that at the net stage, only general revenue remains as shown in Tables 28 and 29.

Sinking-fund earnings are not included in revenues. These amounted in 1946 to: Prince Edward Island, \$118,000; Nova Scotia, \$467,000; New Brunswick, \$535,000; Quebec, \$1,880,000; Ontario, \$2,000; Manitoba, \$374,000; Saskatchewan, \$1,124,000; Alberta, \$4,000 and British Columbia, \$674,000. In previous years, amounts similar to those shown in Tables 29 and 30 as 'Non-Revenue and Surplus Receipts' and 'Non-Expense and Surplus Payments' amounting to \$3,697,000 and \$2,699,000, were excluded. Revenue previously described as 'Public Domain' is nearly all included under 'Privileges, Licences and Permits—Natural Resources'; the remainder now appears under 'Sales and Services'. Likewise, 'Liquor Control' revenues are now shown under five different headings: 'Taxes—Alcoholic Beverages', 'Privileges, Licences and Permits—Liquor Control and Regulation', 'Fines and Penalties', 'Contributions from Government Enterprises—Profits (Liquor)' and 'Other Revenue'; the latter category includes confiscations under liquor control. The analysis of moneys received from the Federal Government as between Taxation Agreement and Subsidies is also worthy of emphasis.

The expenditures classification is also changed considerably. 'Legislation' is now a sub-caption under 'General Government'; 'Highways, Bridges and Ferries' is now under 'Transportation and Communications'; and 'Public Welfare' is now referred to as 'Health and Social Welfare' with a more detailed analysis than

heretofore. Some expenditures previously included under 'Education' are now shown under 'Recreational and Cultural Activities'. 'Public Domain' becomes 'Natural Resources and Primary Industries' with a comprehensive analysis which includes 'Agriculture', (previously a main heading). Whereas in past years, expenditures on debt retirement were excluded, they are included in these tables for the year 1946. Comparisons therefore between expenditures for 1946 and preceding years would have to take into account the amount shown in Table 30 and described as 'Funded Debt Retirement' amounting to \$21,920,000.

## 28.—Net General Revenues and Net Combined General and Capital Expenditures of Provincial Governments, 1942-46

Province	Revenues					Expenditures				
	1942	1943	1944	1945	1946 <sup>1</sup>	1942 <sup>2</sup>	1943 <sup>2</sup>	1944 <sup>2</sup>	1945 <sup>2</sup>	1946 <sup>3</sup>
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
P.E.I.....	2,036	2,617 <sup>4</sup>	2,183	2,529	3,511	1,965	2,546 <sup>4</sup>	2,769	3,323	4,065
N.S.....	16,410	16,937	17,810	19,207	21,659	13,092	13,429	15,156	18,401	24,614
N.B.....	13,136	13,724	14,246	15,605	20,055	12,173	12,137	15,901	17,352	25,547
Que.....	99,944	99,997	103,281	117,236	151,372	92,259	94,701	107,928	110,970	148,670
Ont.....	107,825	117,483	115,712	132,911	150,732	97,173	102,292	113,486	124,777	161,752
Man.....	19,033	19,995	21,325	24,199	22,729 <sup>5</sup>	14,852	14,465	14,572	16,958	19,218 <sup>5</sup>
Sask.....	25,169	30,931	31,002	34,992	37,370 <sup>5</sup>	20,179	20,219	22,707	27,851	35,337 <sup>5</sup>
Alta.....	24,389	25,920	27,416	34,490	36,598	18,702	19,890	22,623	23,480	32,353
B.C.....	39,146	39,019	40,962	46,057	57,763	30,385	30,505	34,773	39,505	57,322
<b>Totals.....</b>	<b>347,088</b>	<b>366,623</b>	<b>373,937</b>	<b>427,226</b>	<b>501,789</b>	<b>300,780</b>	<b>310,184</b>	<b>349,915</b>	<b>382,617</b>	<b>508,878</b>

<sup>1</sup> Includes non-revenue and surplus receipts excluded from preceding years.

<sup>2</sup> Excludes debt retirement which is included in 1946 figures.

<sup>3</sup> Includes non-revenue and surplus payments excluded from preceding years.

<sup>4</sup> Fifteen months due to change in fiscal year.

<sup>5</sup> Eleven months due to change in fiscal year.

## 29.—Details of Net General Revenues of Provincial Governments, 1946

Item	Amount	Per Capita
	\$'000	\$
<b>Taxes—</b>		
Corporation.....	1,651	0-13
<b>Income—</b>		
Corporation.....	952	0-08
Individual.....	249	0-02
Property.....	6,914	0-56
<b>Sales—</b>		
Alcoholic beverages.....	8,854	0-72
Amusements and admissions.....	7,660	0-62
Fuel oil.....	802	0-07
Motor fuel.....	73,435	5-98
Tobacco.....	6,286	0-51
Other commodities and services.....	27,126	2-21
Succession duties.....	34,067	2-77
Other.....	4,022	0-33
<b>Totals, Taxes.....</b>	<b>172,018</b>	<b>14-00</b>
<b>Privileges, Licences and Permits—</b>		
Liquor control and regulation.....	13,737	1-12
Motor-vehicle.....	37,944	3-09
Natural resources.....	42,345	3-45
Other.....	9,572	0-78
<b>Totals, Privileges, Licences and Permits.....</b>	<b>103,598</b>	<b>8-44</b>
<b>Sales and services.....</b>	<b>14,539</b>	<b>1-18</b>
<b>Fines and penalties.....</b>	<b>1,643</b>	<b>0-13</b>

## 29.—Details of Net General Revenue of Provincial Governments, 1946—concluded

Item	Amount	Per Capita
	\$'000	\$
Other Governments—		
Dominion-Provincial taxation agreement.....	83,982	6.84
Federal subsidies.....	15,134	1.23
Totals, Federal.....	99,116	8.07
Municipalities.....	1,376	0.11
Totals, Other Governments.....	100,492	8.18
Contributions from Government Enterprises and Other Funds—		
Liquor profits.....	100,300	8.17
Other.....	3,724	0.30
Other revenue.....	1,778	0.15
Totals, Excluding Non-Revenue and Surplus Receipts.....	498,092	40.55
Non-Revenue and Surplus Receipts—		
Refunds of expenditure.....	1,567	0.13
Refunds of advances credited to revenue.....	2,100	0.17
Other.....	30	--
Totals, Non-Revenue and Surplus Receipts.....	3,697	0.30
<b>Grand Totals.....</b>	<b>501,789</b>	<b>40.85</b>

## 30.—Details of Net Combined General and Capital Expenditures of Provincial Governments, 1946

Function	Amount	Per Capita
	\$'000	\$
General Government—		
Executive and administrative.....	18,240	1.48
Legislative.....	2,557	0.21
Research, planning and statistics.....	242	0.02
Other.....	94	0.01
Totals, General Government.....	21,133	1.72
Protection of Persons and Property—		
Law enforcement.....	7,615	0.62
Corrections.....	4,700	0.38
Police protection.....	6,248	0.51
Other.....	5,337	0.43
Totals, Protection of Persons and Property.....	23,900	1.94
Transportation and Communications—		
Highways, roads and bridges.....	133,158	10.84
Railways.....	45	--
Telephone, telegraph and wireless.....	4	--
Waterways.....	1,924	0.16
Other.....	2	--
Totals, Transportation and Communications.....	135,133	11.00
Health and Social Welfare—		
Health—		
General.....	2,028	0.17
Public health.....	8,154	0.66
Medical, dental and allied services.....	1,405	0.12
Hospital care.....	44,885	3.65
Totals, Health.....	56,472	4.60



### 30.—Details of Net Combined General and Capital Expenditures of Provincial Governments, 1946—continued

Function	Amount	Per Capita
	\$'000	\$
Health and Social Welfare—concluded		
Social Welfare—		
Aid to aged persons.....	20,270	1-65
Aid to blind persons.....	723	0-06
Aid to unemployed employables.....	1,589	0-13
Aid to unemployables.....	3,636	0-30
Mothers' allowances.....	11,772	0-96
Child welfare.....	1,483	0-12
Labour.....	1,799	0-15
Other.....	2,876	0-23
Totals, Social Welfare.....	44,148	3-60
Totals, Health and Social Welfare.....	100,620	8-20
Recreational and Cultural Services—		
Archives, art galleries, museums and libraries.....	705	0-06
Parks, beaches and other recreational areas.....	1,005	0-08
Physical culture.....	270	0-02
Other.....	417	0-03
Totals, Recreational and Cultural Services.....	2,397	0-19
Education—		
Schools operated by local authorities.....	61,506	5-01
Universities, colleges and other schools.....	16,485	1-34
Education of the handicapped.....	779	0-06
Employment training programs.....	2,016	0-16
Superannuation and pensions.....	4,133	0-34
Other.....	3,544	0-29
Totals, Education.....	88,463	7-20
Natural Resources and Primary Industries—		
Fish and game.....	3,546	0-29
Forests.....	14,153	1-15
Lands: settlement and agriculture.....	22,397	1-82
Minerals and mines.....	2,111	0-17
Water resources.....	1,384	0-11
Other.....	1,911	0-16
Totals, Natural Resources and Primary Industries.....	45,502	3-70
Trade and industrial development.....	2,807	0-23
Local government planning and development.....	782	0-06
Debt Charges—		
Commissions on bond or debenture sales and other management charges.....	405	0-03
Discount (or amount amortized) on provincial bond sales.....	1,516	0-12
Funded debt retirement.....	21,920	1-79
Interest.....	47,865	3-90
Loss on foreign exchange.....	929	0-08
Premium (or amount amortized) or loss on sale of securities purchased as investments.....	661	0-05
Totals, Debt Charges.....	73,296	5-97
Contributions to Other Governments—		
Shared revenue contributions.....	5,244	0-43
Subsidies.....	3,270	0-27
Totals, Contributions to Other Governments.....	8,514	0-70
Contributions to Government Enterprises and Other Funds—		
Public service and trading enterprise funds.....	2,571	0-21
Totals, Contributions to Government Enterprises and Other Funds.....	2,571	0-21
Other expenditure.....	1,061	0-09
Totals, Excluding Non-Expense and Surplus Payments.....	506,179	41-21

### 30.—Details of Net Combined General and Capital Expenditures of Provincial Governments, 1946—concluded

Function	Amount	Per Capita
	\$'000	\$
Non-Expense and Surplus Payments—		
Advances.....	1,207	0-10
Refunds of previous years' revenue.....	347	0-03
Other.....	1,145	0-09
Totals, Non-Expense and Surplus Payments.....	2,699	0-22
<b>Grand Totals.....</b>	<b>508,878</b>	<b>41-43</b>

### 31.—Gross General Revenues and Expenditures of Provincial Governments, 1942-46

Province	Revenues					Expenditures				
	1942	1943	1944	1945	1946 <sup>1</sup>	1942 <sup>2</sup>	1943 <sup>2</sup>	1944 <sup>2</sup>	1945 <sup>2</sup>	1946 <sup>3</sup>
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
P.E.I.....	2,278	2,993 <sup>4</sup>	2,564	2,904	4,017	2,273	2,972 <sup>4</sup>	2,907	3,203	3,857
N.S.....	20,462	20,957	22,526	24,367	27,645	17,737	18,039	20,252	23,187	24,331
N.B.....	16,216	16,773	17,875	19,454	24,420	15,056	15,029	17,318	18,981	22,200
Que.....	114,583	116,856	122,308	137,617	173,427	101,293	106,180	118,306	122,929	146,754
Ont.....	132,145	141,268	140,627	159,665	180,605	114,906	128,923	139,503	151,729	169,450
Man.....	23,186	24,446	25,669	28,259	28,725 <sup>5</sup>	19,386	20,025	20,641	22,628	23,170 <sup>5</sup>
Sask.....	30,615	37,454	37,551	41,570	45,198 <sup>5</sup>	25,959	27,743	29,607	34,810	40,112 <sup>5</sup>
Alta.....	28,752	30,528	32,560	40,651	43,167	21,312	22,721	25,002	28,034	33,408
B.C.....	44,148	44,496	47,295	53,468	65,401	36,273	37,158	40,619	45,607	54,893
<b>Totals.....</b>	<b>412,385</b>	<b>435,771</b>	<b>448,975</b>	<b>507,955</b>	<b>592,605</b>	<b>354,195</b>	<b>378,790</b>	<b>414,155</b>	<b>451,108</b>	<b>518,175</b>

<sup>1</sup> Includes non-revenue and surplus receipts excluded from preceding years. <sup>2</sup> Excludes debt retirement which is included in 1946 figures. <sup>3</sup> Includes non-revenue and surplus payments excluded from preceding years. <sup>4</sup> Fifteen months due to change in fiscal year. <sup>5</sup> Eleven months due to change in fiscal year.

### Subsection 2.—Debts of Provincial Governments

The average coupon rate of gross bonded debt of Provincial Governments decreased each year from 4.12 p.c. in 1942 to 3.66 p.c. in 1947. During these years also, the proportion payable in Canada only increased steadily, while that payable in New York showed a marked decline. Prince Edward Island had the smallest average coupon rate in 1947. Since publication of the 1948-49 edition of the Year Book the debt figures for the year 1946 have been revised.

### 32.—Gross Bonded Debt (Exclusive of Treasury Bills) of Provincial Governments, 1942-48

Year	Bonded Debt	Average Coupon Rate	Average Term of Issue	Prince Edward Island			Nova Scotia		
				\$'000	p.c.	yrs.	\$'000	p.c.	yrs.
1942.....	10,568	4.02	11.9	100,911	3.99	19.3			
1943.....	10,518	3.97	11.7	100,921	3.92	19.8			
1944.....	10,648	3.84	11.6	95,875	3.92	20.2			
1945.....	10,023	3.80	12.7	96,547	3.88	20.0			
1946.....	11,583 <sup>1</sup>	3.59	13.0	105,780	3.76	19.6			
1947.....	11,023 <sup>2</sup>	3.29	12.7	99,345	3.58	18.9			
1948.....	..	..	..	124,469	3.42	17.0			

For footnotes, see end of table, p. 1034.

### 32.—Gross Bonded Debt (Exclusive of Treasury Bills) of Provincial Governments, 1942-48—concluded

Year	Bonded Debt	Average Coupon Rate	Average Term of Issue	Bonded Debt	Average Coupon Rate	Average Term of Issue
	New Brunswick			Quebec		
	\$'000	p.c.	yrs.	\$'000	p.c.	yrs.
1942.....	106,505	4.16	18.1	396,071	3.53	16.7
1943.....	105,033	4.12	18.3	386,781	3.53	17.5
1944.....	104,828	4.07	18.1	406,781	3.53	17.4
1945.....	112,284	3.95	17.6	412,811	3.47	17.3
1946.....	117,029	3.76	18.5	408,311	3.47	17.3
1947.....	123,681	3.60	18.3	390,275 <sup>1</sup>	3.45	17.2
1948.....	137,967	3.55	18.2	..	..	..
	Ontario			Manitoba		
	\$'000	p.c.	yrs.	\$'000	p.c.	yrs.
1942.....	624,244	4.14	20.1	86,545	4.61	24.7
1943.....	629,129	3.96	19.4	83,775	4.50	24.3
1944.....	611,620	3.93	19.3	79,630	4.43	24.0
1945.....	583,312	3.92	19.9	75,691	4.46	24.6
1946.....	591,790 <sup>1</sup>	3.70 <sup>2</sup>	21.1 <sup>2</sup>	75,233 <sup>4</sup>	4.24 <sup>4</sup>	24.0 <sup>4</sup>
1947.....	576,947 <sup>2</sup>	3.77	22.0	62,806	4.27	25.4
1948.....	..	..	..	..	..	..
	Saskatchewan			Alberta		
	\$'000	p.c.	yrs.	\$'000	p.c.	yrs.
1942.....	126,303	4.62	22.4	128,123	4.89	26.4
1943.....	125,245	4.54	21.9	127,962	4.88	26.4
1944.....	127,456	4.50	21.6	127,961	4.88	26.4
1945.....	119,793	4.50	22.0	114,600	3.47	23.4
1946.....	129,300 <sup>4</sup>	4.30 <sup>4</sup>	20.5 <sup>4</sup>	113,130	3.47	23.7
1947.....	138,329	4.24	20.0	108,564	3.38	22.3
1948.....	..	..	..	108,289	3.38	22.4
	British Columbia			Totals		
	\$'000	p.c.	yrs.	\$'000	p.c.	yrs.
1942.....	117,359	4.35	21.2	1,696,629	4.12	20.1
1943.....	114,913	4.34	21.4	1,684,282	4.05	20.0
1944.....	113,403	4.22	21.3	1,678,202	4.00	19.9
1945.....	116,602	4.19	21.3	1,641,663	3.86	19.8
1946.....	120,069	3.94	21.7	1,672,225 <sup>2</sup>	3.73	20.2 <sup>2</sup>
1947.....	130,884	3.82	22.0	1,641,853	3.66	20.3
1948.....	..	..	..	..	..	..

<sup>1</sup> Includes in: P.E.I., \$50,000 Provincial Sanatorium Commission; Ont., \$578,000 Niagara Parks Commission not included in previous years. <sup>2</sup> Includes in: P.E.I., \$50,000 Provincial Sanatorium Commission; Ont., \$142,000 Niagara Parks Commission. <sup>3</sup> Includes \$15,000,000 Banque Canadienne Nationale on which no interest is paid. <sup>4</sup> For eleven months only due to change in fiscal year.

### 33.—Total Gross Bonded Debt (Exclusive of Treasury Bills) of Provincial Governments, by Currency of Payment, 1943-47

Payable in—	1943	1944	1945	1946	1947
	\$'000	\$'000	\$'000	\$'000	\$'000
Canada only.....	978,401	979,545	967,965	1,030,826 <sup>2</sup>	1,057,302
London (England) only.....	45,530	45,413	37,215	36,912	29,957
London (England) and Canada.....	25,609	20,214	16,214	16,214	11,404
New York only.....	19,519	33,905	31,905	21,905	3,000
New York and Canada.....	348,835	355,426	353,205	335,395 <sup>2</sup>	321,082
London (England), New York and Canada.....	261,652	238,963	230,423	226,237	219,108
Other.....	4,736	4,736	4,736	4,736	—
<b>Totals.....</b>	<b>1,684,282</b>	<b>1,678,202</b>	<b>1,641,663</b>	<b>1,672,225<sup>2</sup></b>	<b>1,641,853</b>



## 34.—Provincial Government Net Direct and Indirect Debt (Less Sinking Funds), 1946

(As at fiscal years ended nearest to Dec. 31, 1946)

NOTE.—Revised since the publication of the 1948-49 Year Book.

Item	P. E. I. \$'000	N. S. \$'000	N. B. \$'000	Que. \$'000	Ont. \$'000	Man. <sup>1</sup> \$'000	Sask. <sup>1</sup> \$'000	Alta. \$'000	B. C. \$'000	Total \$'000
<b>Direct Debt</b>										
Bonded debt.....	11,533	105,780	117,029	408,311	591,790	75,233	129,300	113,130	120,069	1,672,225
Less sinking funds.....	2,658	13,203 <sup>2</sup>	17,984	84,036	27,949	19,123	38,024	143	20,205	223,330
Totals Bonded Debt.....	8,925	92,572	99,045	324,275	563,841	56,110	91,276	112,987	99,864	1,448,895
Treasury Bills—										
Held by Federal Government.....	—	—	—	7,241	—	24,735	90,734	26,212	34,031	175,712
Held by others.....	—	—	—	7,241	—	8,553	14,122	—	4,915	34,831
Totals Treasury Bills.....	—	—	—	7,241	—	33,288	104,856	26,212	38,946	210,543
Savings certificates and deposits.....	1,688	—	—	—	61,604	2	—	1,049	—	64,343
Temporary loans and overdrafts.....	112	—	723	—	2,276	—	—	—	—	3,111
Bonds (or debentures) due.....	—	40	565	—	—	—	—	3	—	608
Bond (or debenture) interest due.....	—	146	—	284	40	—	—	9,825 <sup>3</sup>	—	10,295
Accounts and Other Payables—										
Government enterprises.....	—	—	133	—	293	148	—	—	—	574
Trust funds and other deposits.....	45	—	637	5,603	8,436	2,236	1,368	4,459	4,170	26,954
Other.....	47	2,760	356	14,022	5,362	46	2,123	1,258	7,662	33,636
Accrued interest and other accrued expenditures.....	—	812	1,091	3,193	7,298	2,063	1,144	1,282	1,682	18,565
<b>Totals, Net Direct Debt (less sinking funds).....</b>	<b>10,817</b>	<b>96,330</b>	<b>102,550</b>	<b>354,618</b>	<b>649,150</b>	<b>93,893</b>	<b>200,767</b>	<b>157,075</b>	<b>152,324</b>	<b>1,817,524</b>
<b>Indirect Debt</b>										
Guaranteed bonds or debentures.....	—	1,321	1,222	56,488	111,127	1,386	358	102	6,520	178,534
Less sinking funds.....	—	77	206	154	11	—	294	—	2,233	2,975
Totals Guaranteed Bonds or Debentures.....	—	1,244	1,026	56,334	111,116	1,386	64	102	4,287	175,559
Guaranteed bank loans.....	45	797	583	3,458	2,185	—	119	588	—	7,775
Other Guarantees—										
Municipal Improvement Assistance Act loans.....	5	533	363	1,534	—	120	605	503	1,552	5,215
Other.....	—	—	—	31,910 <sup>4</sup>	—	—	—	—	—	31,910
<b>Totals, Net Indirect Debt (less sinking funds).....</b>	<b>50</b>	<b>2,574</b>	<b>1,972</b>	<b>93,236</b>	<b>113,301</b>	<b>1,506</b>	<b>788</b>	<b>1,193</b>	<b>5,839</b>	<b>220,459</b>
<b>Totals, Net Direct and Indirect Debt (less sinking funds).....</b>	<b>10,867</b>	<b>98,904</b>	<b>104,522</b>	<b>447,854</b>	<b>762,451</b>	<b>95,399</b>	<b>201,555</b>	<b>158,268</b>	<b>158,163</b>	<b>2,037,983</b>

<sup>1</sup> Eleven months only due to change in fiscal year.<sup>2</sup> Excludes sinking-fund investments of \$2,767,000 held by Nova Scotia Power Commission against bonds issued by the Province of Nova Scotia for the purpose of making advances to the Commission.<sup>3</sup> Includes \$8,662,000 as payment of portion of interest adjustment on unmortgaged securities deferred June 1, 1947, to 1950, inclusive.<sup>4</sup> Includes mortgages and other contracts payable. <sup>5</sup> Commitments on Public Charities Fund and on various appropriations payable to institutions.

## Section 4.—Municipal Finance\*

Material dealing with the organization and growth of municipalities in Canada as well as classification and population, which in previous editions appeared in this Section, has been expanded and may now be found in Chapter III, pp. 130-134.

### Subsection 1.—Municipal Assessed Valuations

The revenue resources of municipalities are limited generally to direct taxation, based on assessed valuations of real and other types of property. The assessment of personal property has had its ups and downs particularly in the Prairie Provinces. The Maritime Provinces, Manitoba and Alberta are the only provinces at the present time in which municipalities assess and tax personal property. In Alberta in 1946 there was an increase in the use of this basis for tax revenue by villages while in Manitoba it is used generally by all classes of municipalities except cities. Aside from real property, the next important type of valuation for taxation purposes is business assessment, although not all provinces assess for business purposes separately and distinctly from real property valuations. A variation of methods, schedules and rates exists not only between provinces but also between municipalities within the same province. Some municipalities use the rental basis, others the value of floor space occupied and still others the capital value of the premises occupied. Most of the provinces have other miscellaneous types of assessment, the general nature of which will be noted from the footnotes to Table 35. It will also be noted that income assessment, which formerly was employed in Nova Scotia and New Brunswick only, disappeared in 1943. This is a result of the operation of the Dominion-Provincial Tax Agreements whereby the provinces and municipalities abandoned the income-tax field for the duration of the War and a limited period thereafter, so as to leave it open to the Federal Treasury.

It should be noted that the figures in Table 35 are not entirely comparable, on an interprovincial basis, from the standpoint of relative values of properties taxable for municipal purposes. Each province operates under its own assessment laws, which are not all similar, either in application or in effect. For instance, in British Columbia cities and municipal districts improvements cannot be taxed on a value in excess of 75 p.c. of taxable values or in villages in excess of 50 p.c. of taxable values; the values actually taxed in 1947 ranged from nil to 75 p.c. In the majority of cases, improvements were assessed for tax purposes at 50 p.c. of taxable values, but for all municipalities the total improvements actually taxed represented approximately 48 p.c. of total taxable values. It should also be noted that Table 35 does not include assessed valuations in Improvement Districts for either Saskatchewan or Alberta. In Saskatchewan these amounted to \$28,598,170, \$27,327,995, \$26,874,190 and \$26,892,080, and in Alberta to \$61,016,330, \$63,171,742, \$62,753,779 and \$68,645,962 in 1944, 1945, 1946 and 1947, respectively. In addition there are other intra-provincial inconsistencies between municipalities which, in turn, further affect interprovincial comparisons. These may be said to be due to the lack of integrated municipal assessment systems and uniform standards for establishing values on a province-wide basis, under the direction and control of a central authority. Some provinces, however, have made considerable progress along these lines in recent years, as in the case of Saskatchewan, the results of which are referred to in the text following Table 35.

\* Revised in the Public Finance Division, Dominion Bureau of Statistics.

## 35.—Municipal Assessed Valuations, by Provinces, 1944-47

Province and Year	Taxable Valuations on which Taxes were Levied					Total Exemptions
	Real Property	Personal Property	Business	Other <sup>1</sup>	Total	
	\$	\$	\$	\$	\$	\$
<b>P.E.I.—<sup>2</sup></b>						
1944.....	10,467,726	4,172,328	...	...	14,640,054	5,765,500
1945.....	10,623,217	4,241,766	...	...	14,864,983	6,174,500
1946.....	10,984,447	4,502,720	...	...	15,487,167	6,101,500
1947.....	11,425,735	4,656,100	...	...	16,081,835	6,176,500
<b>N.S.—</b>						
1944.....	148,691,531	25,466,512	9,872,785	3,873,185	187,904,013	86,406,901
1945.....	152,778,340	26,674,666	10,206,195	3,960,665	193,619,866	92,492,075
1946.....	157,154,637	28,015,764	10,153,105	3,716,785	199,040,291	93,799,064
1947.....	163,793,261	30,708,957	10,473,500	3,831,875	208,807,593	95,469,188
<b>N.B.—</b>						
1944.....	127,220,640	16,548,973	15,396,604 <sup>3</sup>	...	159,166,217	..
1945.....	146,980,050	21,229,398	16,196,114 <sup>3</sup>	...	184,405,562	..
1946.....	172,431,970	25,603,181	17,628,210 <sup>3</sup>	...	215,663,361	..
1947.....	202,428,452	33,671,051	21,704,153 <sup>3</sup>	...	257,803,656	..
<b>Que.—</b>						
1944.....	..	..	..	..	2,343,734,545	839,704,322 <sup>4</sup>
1945.....	..	..	..	..	2,436,210,884	834,183,996 <sup>4</sup>
1946.....	..	..	..	..	..	..
1947.....	..	..	..	..	..	..
<b>Ont.—</b>						
1944.....	2,796,478,478	...	266,342,162	...	3,066,176,684 <sup>5</sup>	433,985,000 <sup>6</sup>
1945.....	2,836,780,212	...	272,281,909	...	3,109,062,121	440,533,000 <sup>6</sup>
1946.....	2,890,673,352	...	282,781,011	...	3,173,454,363	440,985,000 <sup>6</sup>
1947.....	3,030,283,255	...	316,084,049	...	3,346,367,304	639,762,954
<b>Man.—</b>						
1944.....	428,936,654	5,357,925	11,498,477	...	445,793,056	160,724,099
1945.....	434,656,903	5,426,310	11,768,128	...	451,851,341	159,756,368
1946.....	445,388,274	5,655,410	12,442,215	...	463,485,899	159,400,109
1947.....	459,840,343	6,416,250	14,902,614	...	481,159,207	156,403,203
<b>Sask.—</b>						
1944.....	789,010,569	...	38,501,071	523,417	828,035,057	..
1945.....	782,673,415	...	39,278,142	526,266	822,477,823	93,565,542
1946.....	782,937,261	...	40,073,658	541,552	823,552,471	98,992,996
1947.....	807,306,328	...	42,162,089	374,900	849,843,317	105,992,261
<b>Alta.—</b>						
1944.....	485,650,854	8,835,584	12,313,699	3,693,653	510,493,790	78,330,720
1945.....	496,660,321	10,384,400	12,227,048	3,147,230	522,418,999	66,787,105
1946.....	516,607,849	13,026,153	13,120,880	3,297,738	546,052,120	65,354,428
1947.....	558,870,813	12,902,881	14,547,559	3,726,747	590,048,000	66,463,605
<b>B.C.—</b>						
1944.....	407,461,787 <sup>7</sup>	...	...	...	407,461,787	427,996,794 <sup>8</sup>
1945.....	420,156,138 <sup>7</sup>	...	...	...	420,156,138	414,560,613 <sup>8</sup>
1946.....	448,357,276 <sup>7</sup>	...	...	...	448,357,276	433,520,319 <sup>8</sup>
1947.....	487,636,072 <sup>7</sup>	...	...	...	487,636,072	454,327,275 <sup>8</sup>
<b>Totals—</b>						
1944.....	9	9	9	9	7,963,405,203 <sup>5</sup>	9
1945.....	9	9	9	9	8,155,067,717	9
1946.....	9	9	9	9	9	9
1947.....	9	9	9	9	9	9

<sup>1</sup> Includes the following: N.S.—Household Tax; Ont.—Income of Corporations derived from interest earnings on investments discontinued in 1944; Sask.—Special Franchise; Alta.—Franchise and Other Special.

<sup>2</sup> Includes estimated values for some municipalities, also total exemptions incomplete.  
<sup>3</sup> Includes some other types of valuations not specified.  
<sup>4</sup> Includes temporary exemptions: \$61,283,443 (1944) and \$43,932,563 (1945).  
<sup>5</sup> Does not cross-add to total; complete information for some municipalities not available.

<sup>6</sup> Cities only; exemptions for other municipalities not published.  
<sup>7</sup> Includes \$192,542,560 (1944), \$201,269,083 (1945), \$223,651,933 (1946), and \$247,390,470 (1947) valuation of improvements, the total value of which was \$435,017,282 (1944), \$433,581,311 (1945), \$468,844,049 (1946), and \$511,289,782 (1947) and the maximum value at which they could be taxed was \$274,063,507 (1944), \$271,071,473 (1945), \$292,353,568 (1946), and \$379,965,133 (1947).  
<sup>8</sup> Consists of \$185,522,072 (1944), \$22,248,385 (1945), \$188,328,203 (1946), and \$190,427,963 (1947) valuation of exempted properties, and \$42,474,722 (1944) \$232,312,228 (1945), \$245,192,116 (1946), and \$263,899,312 (1947) exemptions of taxable improvements as referred to in footnote 7.

<sup>9</sup> Totals not complete.



While complete figures for tax-exempt properties are not available for each province, it will be noted from the information given that these have assumed relatively high proportions. Most provinces have shown consistent increases in taxable assessed valuations which may be attributed largely to the stimulus to business and industry in general, arising from the War. Saskatchewan, however, showed a reduction in total valuations up to 1945. This was the result of a province-wide plan of re-assessment of rural municipalities by the Department of Municipal Affairs. The subsequent trend in that Province has been upward, slightly in 1946 and substantially in 1947.

### Subsection 2.—Municipal Taxation

Table 36 shows, by provinces, the taxes levied by municipalities in comparison with collections in 1944, 1945, 1946 and 1947, and the total taxes outstanding at the end of those years. While these figures are as nearly comparable as may be obtained from existing published reports, they nevertheless reflect some inconsistencies due particularly to interprovincial variations in the division of responsibility for tax administration between municipalities and school authorities. In some instances school taxes are not included in the municipal levies. In Prince Edward Island, two only of the eight incorporated municipalities have their own individual school districts and levy and collect the school taxes. In Quebec, while school taxes, with few exceptions, are levied and collected by the school corporations which function independently of municipal authorities, they are, nevertheless, included in this tabulation for purposes of greater interprovincial comparability. It will, therefore, be apparent from the foregoing that the figures in Table 36, except in the case of Quebec, represent only the amount of tax levies, collections and arrears of the municipalities, and include school taxes only to the extent that such are also levied and collected by the municipalities for and on behalf of local school authorities. Taxes for schools outside incorporated municipal organizations are not included.

### 36.—Municipal Taxation, by Provinces, 1944-47

NOTE.—See text, pp. 1039-40, for limitations on comparability of statistics in this table.

Province and Year	Tax Levy	Tax Collections, Current and Arrears		Taxes Receivable, Current and Arrears	Property Acquired for Taxes	Total Taxes Receivable and Property Acquired for Taxes	
		Total	P.C. of Levy			Total	P.C. of Levy
<b>P. E. Island—</b>	\$	\$		\$	\$	\$	
1944.....	337,233	334,713	99.3	150,712	..	150,712	44.7
1945.....	377,487	379,576	100.6	146,975	..	146,975	38.9
1946.....	393,791	403,666	102.5	132,449	..	132,449	33.6
1947.....	445,532	456,380	102.4	232,808	..	232,808	52.3
<b>Nova Scotia—</b>							
1944.....	9,584,165	9,750,605	101.7	3,771,845	257,623	4,029,468	42.0
1945.....	10,046,450	10,216,800	101.7	3,386,493	232,897	3,619,390	36.0
1946.....	10,705,668	10,635,395	99.3	3,227,837	204,500	3,432,337	32.1
1947.....	12,054,778	11,437,476	94.9	3,713,902	198,637	3,912,539	32.5
<b>New Brunswick—</b>							
1944.....	5,377,195 <sup>2</sup>	5,514,272 <sup>2</sup>	102.5	3,526,083	..	3,526,083	65.6
1945.....	6,708,855 <sup>2</sup>	6,545,264 <sup>2</sup>	97.6	3,375,399	..	3,375,399	50.3
1946.....	7,350,407 <sup>2</sup>	7,350,087 <sup>2</sup>	99.3	3,040,178	..	3,040,178	41.4
1947.....	8,023,491 <sup>2</sup>	7,673,308 <sup>2</sup>	95.6	2,704,833	93,674	2,798,507	34.9

For footnotes, see end of table.

## 36.—Municipal Taxation, by Provinces, 1944-47—concluded

Province and Year	Tax Levy	Tax Collections, Current and Arrears		Taxes Receivable, Current and Arrears	Property Acquired for Taxes	Total Taxes Receivable and Property Acquired for Taxes	
		Total	P.C. of Levy			Total	P.C. of Levy
	\$	\$		\$	\$	\$	
<b>Quebec—</b>							
1944.....	74,428,078	31,008,759 <sup>1</sup>	91·8 <sup>2</sup>	19,553,478	14,756,456 <sup>4</sup>	34,309,934	46·1
1945.....	81,066,353	..	..	17,875,172	12,836,487	30,711,659	37·9
1946.....	..	..	..	..	..	..	..
1947.....	..	..	..	..	..	..	..
<b>Ontario—</b>							
1944.....	111,380,748	114,435,002	102·7	13,977,678	13,422,460	27,400,138	24·6
1945.....	108,162,977	110,003,248	101·7	11,722,272	11,430,367	23,152,639	21·4
1946.....	117,628,950	117,925,376	100·3	11,115,210	8,033,594	19,148,804	16·3
1947.....	135,402,232	133,406,269	98·5	10,885,288	5,135,715	16,021,003	11·8
<b>Manitoba—</b>							
1944.....	18,884,541	21,162,059	112·1	4,502,178	7,408,245	11,910,423	63·1
1945.....	19,907,359	21,666,411	108·8	3,729,976	6,711,043	10,441,019	52·4
1946.....	21,850,851	24,078,551	110·2	3,321,263	5,875,686	9,196,949	42·1
1947.....	22,913,313	22,495,093	98·2	3,570,625	4,758,020	8,328,645	36·3
<b>Saskatchewan<sup>5</sup>—</b>							
1944.....	23,131,386	32,758,402	141·6	19,075,183	14,381,610	33,456,793	144·6
1945.....	24,472,774	26,771,259	109·4	14,381,434	13,164,621	27,546,055	112·6
1946.....	26,778,439	27,825,445	103·9	11,309,019	11,272,746	22,581,765	84·3
1947.....	29,337,261	28,712,019	97·9	10,392,172	10,605,292	20,997,464	71·6
<b>Alberta<sup>5</sup>—</b>							
1944.....	18,491,338	21,883,999	118·3	11,488,855	14,817,596	26,306,451	142·3
1945.....	20,126,704	21,982,639	109·2	9,753,560	13,162,366	22,915,926	113·8
1946.....	23,290,792	24,633,528	105·8	6,748,050	12,833,210	19,581,260	84·1
1947.....	26,290,949	26,474,274	100·7	6,380,108	11,410,124	17,790,232	67·7
<b>British Columbia—</b>							
1944.....	19,788,620	20,339,931	102·8	2,118,136	11,548,982	13,667,118	69·1
1945.....	20,824,066	21,144,607	101·5	1,760,416	10,351,989	12,112,405	58·2
1946.....	22,623,665	22,684,018	100·3	1,613,434	8,207,688	9,821,122	43·4
1947.....	25,473,598	25,093,044	98·5	1,976,956	7,423,629	9,400,585	36·9
<b>Totals—</b>							
1944.....	281,403,304	257,187,742 <sup>6</sup>	109·2 <sup>6</sup>	78,164,148	?	154,757,120	55·0
1945.....	291,693,025	?	?	66,131,697	?	134,021,467	45·9
1946.....	?	?	?	?	?	?	?
1947.....	?	?	?	?	?	?	?

<sup>1</sup> Includes estimates in some instances as actual figures are not available. <sup>2</sup> Excludes \$1,328,914 in 1944, \$1,363,007 in 1945, and \$1,366,821 in 1946 and 1947, compensation through Provincial Government for loss of income tax (see p. 1036).

<sup>3</sup> Excludes cities and towns. <sup>4</sup> Cities and towns only. <sup>5</sup> Includes certain provincial and other special taxes (see text following this table), but excludes taxes in Improvement Districts. <sup>6</sup> See notes applying to the provinces. <sup>7</sup> Totals not complete.

Because of these inconsistencies and the fact also that there are considerable differences in the division of responsibility for services between the Provincial Governments and their respective municipalities, extreme caution should be exercised in using the figures in Table 36 as a basis for interprovincial comparisons of the relative burden of municipal taxation. Also, in Saskatchewan and Alberta, municipalities are required to levy certain taxes for and on behalf of the Provincial Government and for other special purposes for which there is no comparable situa-

tion in other provinces. The amounts of such taxes included in the municipal levies in these two provinces, are as follows:—

<i>Item</i>	<i>1944</i>	<i>1945</i>	<i>1946</i>	<i>1947</i>
	\$	\$	\$	\$
<b>Saskatchewan—</b>				
Public Revenue Taxes (Provincial).....	1,650,131	1,621,273	1,661,667	1,689,695
Telephone and Hail Taxes.....	2,208,942	2,366,483	2,106,250	2,293,634
<b>Totals, Saskatchewan.....</b>	<b>3,859,073</b>	<b>3,987,756</b>	<b>3,767,917</b>	<b>3,983,329</b>
<b>Alberta—</b>				
Social Services, Educational and Wild Lands Taxes (Provincial).....	1,010,475	1,033,456	1,009,951	54,674

There has been only a slow steady rise in the trend of municipal tax levies in Canada in the years 1944-47. While most provinces show increases, this does not necessarily mean an increased burden on the individual taxpayer in all instances, but is more the result, in part at least, of the increases reflected in assessed valuations. In Nova Scotia and New Brunswick the increases are, to a considerable extent, due to the establishment of larger school units previously referred to in this Section, whereby some municipalities are now levying certain taxes which formerly were levied by rural school boards. Tax collections continued high in relation to total levies; this, in recent years, has resulted in substantial reductions in the amount of unpaid taxes outstanding although these are still relatively high in most provinces. The situation for different classes of municipalities varies considerably. Reference has been made heretofore to the Improvement Districts in Saskatchewan and Alberta which, although not incorporated municipalities, are nevertheless maintained by the Provincial Governments more or less as self-sustaining areas on the same basis. Taxation figures for these Districts are excluded from Table 36 but by reason of the special significance attached to them in relation to municipal organization in these provinces, and the fact that they may become incorporated, or part of existing municipalities at some future date, the corresponding information with regard to them is shown in Table 37.

### 37.—Taxation in Improvement Districts of Saskatchewan and Alberta, 1944-47

Province and Year	Tax Levy	Tax Collections, Current and Arrears		Taxes Receivable, Current and Arrears	Property Acquired for Taxes	Total Taxes Receivable and Property Acquired for Taxes	
		Total	P.C. of Levy			Total	P.C. of Levy
	\$	\$		\$	\$	\$	
<b>Saskatchewan—<sup>1</sup></b>							
1944.....	613,981	787,801	128.3	1,279,027	..	1,279,027	208.3
1945.....	511,947	537,908	105.1	1,137,871	224,829	1,362,700	266.2
1946.....	686,023	716,446	104.4	1,202,423	233,457	1,435,880	209.3
1947.....	755,824	722,871	95.6	1,189,069	254,876	1,443,945	191.0
<b>Alberta—</b>							
1944.....	1,383,922	1,732,895	125.2	3,790,050	..	3,790,050	273.9
1945.....	1,524,539	1,611,255	105.7	3,891,080	..	3,891,080	255.2
1946.....	1,944,378	2,314,184	119.0	3,408,445	..	3,408,445	175.3
1947.....	2,189,138	2,380,949	108.8	2,851,758	..	2,851,758	130.3
<b>Totals—</b>							
1944.....	1,997,903	2,520,696	126.2	5,069,077	..	5,069,077	253.7
1945.....	2,036,486	2,149,163	105.5	5,028,951	224,829	5,253,780	258.0
1946.....	2,630,401	3,030,630	115.2	4,610,868	233,457	4,844,325	184.2
1947.....	2,944,962	3,103,820	105.4	4,040,827	254,876	4,295,703	145.9

<sup>1</sup> Includes Public Revenue (Provincial) Taxes of \$56,998 (1944); \$54,459 (1945); \$53,558 (1946) and \$53,619 (1947).



### Subsection 3.—Municipal Debt

The rapid growth experienced by municipalities in Canada coupled with increased demands and responsibilities for improvements, schools, utilities, and other services or facilities has resulted in the incurring of a heavy burden of debt. Debenture borrowings increased rapidly in the period 1900-12 and again during the 1920's and early 1930's. From 1933 to 1946, however, the trend was downward.

Several important factors have contributed to this decline in municipal indebtedness, not the least important of which has been the measure of control exercised by Provincial Government departments over capital expenditures involving the incurring of debt. In addition, there was a more or less orderly retrenchment during the depression years following periods of what proved to be unwarranted expansion which, along with widespread demands to ease the tax burden on real property, has resulted in capital undertakings and works requiring debenture financing being severely curtailed. A further significant factor in this regard is that the greater part of the municipal long-term debt is represented by serial or instalment-type debentures, which require yearly repayments of principal. While the benefits of debt reduction are of course manifold, certain expenditures have been sorely needed in many communities for the rehabilitation of existing assets and for new improvements necessitated by the normal expansion and development that has taken place. These were sacrificed in the earlier years mainly in the interest of the taxpayer; subsequently, after the outbreak of war in 1939, the policy of deferment was continued, if not extended, to free the financial market to the needs of the Federal Government in meeting its war financing requirements. Municipalities having been denied, either voluntarily or otherwise, improvement programs for so long, will show a natural tendency to get these under way as soon as possible in correlation with master post-war plans of the Federal and Provincial Governments. This becomes apparent in the increased amounts of debt shown for 1947 for Nova Scotia, New Brunswick, Ontario, Manitoba, Alberta and British Columbia. Indications are that an accelerating rate of increase will be recorded for 1948 and 1949. Table 38 shows figures of municipal indebtedness for 1947 and includes temporary loans and other liabilities in addition to debenture debt. A table at p. 791 of the 1941 Year Book shows the bonded indebtedness of municipalities from 1919 to 1938.

### 38.—Debt of Municipal and School Corporations for their Fiscal Years Ended in 1947

NOTE.—Compiled from published reports of Provincial Departments of Municipal Affairs, auditors reports and financial statements of municipalities, and information secured from other official sources.

Item	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
	\$	\$	\$	\$	\$
<b>Direct Debt—</b>					
Debenture debt.....	2,997,326	34,821,313	26,519,011	..	227,630,656 <sup>1</sup>
Less sinking funds.....	986,899	15,335,043	9,414,350	..	27,913,461
Net Debenture Debt.....	2,010,427	19,486,270	17,104,661	..	199,717,195
Temporary loans.....	135,681	1,157,888	551,284	..	16,420,036 <sup>2</sup>
Accounts payable and other liabilities..	32,117	1,602,650	2,730,806	..	27,307,375 <sup>2</sup>
<b>Totals, Direct Liabilities (less sinking funds).....</b>	<b>2,178,225<sup>3</sup></b>	<b>22,246,808<sup>3</sup></b>	<b>20,386,751</b>	<b>..</b>	<b>243,444,606</b>

For footnotes, see end of table, p. 1042.

### 38.—Debt of Municipal and School Corporations for their Fiscal Years Ended in 1947 —concluded

Item	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
	\$	\$	\$	\$	\$
<b>Indirect Debt—</b>					
Guaranteed bonds, debentures, etc. ....	..	746,500	390,000	..	18,082,595
Less sinking funds.....	..	110,086	222,684	..	227,008
<b>Totals, Indirect Liabilities (less sinking funds).....</b>	..	<b>636,414</b>	<b>167,316</b>	..	<b>17,855,587</b>
<b>Grand Totals.....</b>	<b>2,178,225<sup>1</sup></b>	<b>22,883,222</b>	<b>20,554,067</b>	..	<b>261,300,193</b>
	Manitoba	Saskat- chewan	Alberta	British Columbia	Total
	\$	\$	\$	\$	\$
<b>Direct Debt—</b>					
Debenture debt.....	45,826,585	26,401,213	40,221,541	110,648,458	..
Less sinking funds.....	13,566,741	10,023,589	2,001,757	31,629,985	..
Net Debenture Debt.....	32,259,844	16,377,624	38,219,784	79,018,473	..
Temporary loans.....	12,634,623 <sup>4</sup>	1,780,513	3,540,705 <sup>5</sup>	400,027	..
Accounts payable and other liabilities..	5,371,705	15,911,743	16,056,082	7,367,293 <sup>6</sup>	..
<b>Totals, Direct Liabilities (less sinking funds).....</b>	<b>50,266,172</b>	<b>34,069,880</b>	<b>57,816,571</b>	<b>86,785,793</b>	..
<b>Indirect Debt—</b>					
Guaranteed bonds, debentures, etc. ....	14,287,819	..	..	18,113,546	..
Less sinking funds.....	6,259,078	..	..	3,673,695	..
<b>Totals, Indirect Liabilities (less sinking funds).....</b>	<b>8,028,741</b>	..	..	<b>14,439,851</b>	..
<b>Grand Totals.....</b>	<b>58,294,913</b>	<b>34,069,880</b>	<b>57,816,571</b>	<b>101,225,644</b>	..

<sup>1</sup> Includes \$7,701,414 net debenture debt (less sinking funds) and other capital liabilities of Separate School Boards and School Districts in unorganized areas (capital loans and debenture payments in arrears are also included in this amount). <sup>2</sup> Excludes liabilities of schools and other local boards and commissions but includes in lieu thereof amounts due by municipal revenue fund accounts to such schools and other local authorities [information required to make the necessary eliminations on this account not available from published reports (see footnote 1)]. <sup>3</sup> Excludes rural schools. <sup>4</sup> Includes \$4,088,267 treasury bills. <sup>5</sup> Includes \$2,660,860 treasury bills. <sup>6</sup> Includes \$1,213,843 tax prepayment deposits for Vancouver.

Available information indicates that the direct and indirect debt of municipalities continued during 1945 the decline which had been evident since 1940. Table 41 at p. 1006 of the 1948-49 edition of the Year Book gives figures for the years 1944 and 1945. As the statistics are not yet available for Quebec for 1946 or 1947, it is not possible to appraise the trend in those years for Canada as a whole. Retirement of direct debenture debt accounted for the major portion of the decrease during this period, although there have also been substantial reductions in unfunded liabilities. The decreases in debenture debt are due to the factors mentioned on p. 1041, while improved tax collections have made it possible for municipalities to avoid heavy temporary borrowings and reduce other current liabilities. It is pointed out however that debenture debt figures are intended to represent only principal unmatured. In general, principal past due, whether in default or unpaid because of non-presentation, has been included with accounts payable and other liabilities. The more significant items available are given in Table 39.

## 39.—Debenture Principal and Interest Due, 1944-47

Province and Item	1944	1945	1946	1947
	\$	\$	\$	\$
Prince Edward Island—				
Principal.....	1,000	4,200	3,600	9,900
Interest.....	6,370	4,695	5,556	6,191
Totals, Prince Edward Island.....	7,370	8,895	9,156	16,091
Nova Scotia—				
Principal.....	16,800	20,848	24,213	22,869
Interest.....	50,605	40,528	54,101	50,576
Totals, Nova Scotia.....	67,405	61,376	78,314	73,445
New Brunswick—				
Principal.....	..	..	..	113,358
Interest.....	..	..	..	189,471
Totals, New Brunswick.....	253,353	298,937	289,279	302,829
Quebec—				
Principal past due (municipal).....	1,921,580	2,080,421	..	..
Past due and accrued interest (municipal).....	220,135	290,265	..	..
Principal and interest past due (schools).....	802,646	915,756	..	..
Totals, Quebec.....	2,944,361	3,286,442	..	..
Ontario—				
Principal.....	..	..	..	1,010,364
Interest.....	..	..	..	1,468,469
Totals, Ontario.....	6,052,495	4,306,906	4,274,944	2,478,833
Manitoba—				
Principal.....	..	1,077,182	316,940	143,530
Interest.....	98,745 <sup>1</sup>	627,314 <sup>1</sup>	360,010	152,022
Totals, Manitoba.....	..	1,704,496	676,950	295,552
Saskatchewan—				
Principal past due (excluding primary schools).....	1,674,103	287,364	207,975	118,349
Interest past due (excluding primary schools).....	3,113,957	1,329,752	202,357	165,023
Principal and interest past due (primary schools)....	940,423	267,935	220,238	156,696
Totals, Saskatchewan.....	5,728,483	1,885,051	630,570	440,068
Alberta—				
Principal and interest past due (municipal).....	445,145	534,533	451,455	435,182
Principal and interest past due (schools).....	178,199	130,529	57,423	63,361
Totals, Alberta.....	623,344	665,062	508,878	498,543
British Columbia—				
Principal and interest past due.....	495,570	507,487	789,033	125,107
<b>Grand Totals.....</b>	..	<b>12,724,652</b>	..	..

<sup>1</sup> Schools only.



## PART II.—DEVELOPMENTS IN THE TAXATION FIELD

Prior to the First World War, the Federal Government was able to finance its expenditures through the imposition of such indirect taxes as customs and excise duties. There were minor direct taxes imposed for other purposes than revenue but these, in the fiscal year 1914, amounted to less than 1.5 p.c. of the total revenue from taxation collected by the Federal Government. To-day, direct taxation accounts for about 49 p.c. of federal revenue.

The unprecedented financial demands of the First World War began to be felt by 1915 and between 1915 and 1917 the Federal Government entered the direct-taxation field with the imposition of taxes on banks, trust and loan companies, insurance companies and business profits. The income tax was introduced in Canada in the latter year and continued to be an important source of revenue in the period between the two wars. The outbreak of war in 1939 and the resulting rapid expansion of government expenditures led to a very substantial increase in individual and corporation income-tax rates, the tax on excess profits was revived and made much more severe and the Federal Government entered the fields of succession duties and gasoline taxes (the latter were semi-direct) which had hitherto been imposed exclusively by the provinces.

Details of changes in the income-tax field made in the 1948-49 and 1949-50 Budgets are given at pp. 1018-1019.

The place that direct taxation has assumed in the field of general taxation and its incidence on the purse of the ordinary taxpayer has made it advisable to give this subject separate treatment but this should not detract attention from the important place that indirect taxation, through customs, excise and sales taxes, still holds in the taxation burden that the individual taxpayer is called upon to bear. (See Table 8 p. 1006.)

In 1942 the Federal Government entered the succession-duty field with the passage of the Dominion Succession Duty Act.

The main elements of direct or semi-direct taxation are given in the following sections, dealing with income tax and succession duties, respectively. As of April, 1947, the Federal Government gasoline tax, imposed in 1939, was repealed and therefore does not now find a place in this Part.

### Section 1.—Income Tax\*

The income tax was instituted in 1917, as a part of what was known as war-tax revenue. Before the outbreak of the Second World War, it had become a permanent and important part of the taxation structure, and the chief source of raising ordinary revenue. In many respects, it is an ideal form of direct taxation: in theory it has much to commend it, and the experience and machinery for the collection of this tax has been built up over a long period of years.

The Income Tax Act contains separate schedules of tax rates for individuals and corporations. With the advent of war, the yield of individual income tax was very substantially increased by reducing personal exemptions and increasing the rates of tax. While the high wartime personal income tax was in force a 'compulsory savings' feature was introduced. This resulted in the collection of refundable savings tax in the amount of approximately \$290,000,000 during the years

\* More detailed information is given in the annual report "Taxation Statistics" published by the Taxation Division, Department of National Revenue, Ottawa.

1942, 1943 and 1944. The liability, together with interest at 2 p.c. was repaid in 1948 and 1949. In the corporation field during the War the income-tax rate was increased slightly from 15 p.c. to 18 p.c. and the necessary additional revenue was secured through the application of the provisions of the Excess Profits Tax Act.

After the termination of hostilities the weight of individual income tax was reduced each year up to and including 1949. However, the normal revenue loss to be expected from the tax reduction has been largely offset by the expansion of personal incomes. In the corporation field the excess-profits tax was gradually reduced after 1945 until its abandonment at the beginning of 1948. In 1948 the corporation income-tax rate was raised from 18 p.c. to 30 p.c. concurrently with the dropping of the excess-profits tax. Changes introduced in 1949 will be found at pp. 1018-1019.

### Subsection 1.—Collection Statistics

**Collections on a Fiscal-Year Basis.**—Collection statistics are gathered at the time the payments are made and, therefore, have the value of being very up-to-date. Their timeliness has been enhanced within the past few years by the adoption of the "pay-as-you-go" system which results in collecting tax substantially during the year in which the income is earned and, on the average, about ten months prior to the actual filing of an income-tax return by the taxpayer. The payments on behalf of most taxpayers, however, are made by their employers and a cheque from one employer may cover the tax payments of hundreds of employees. At this stage, therefore, it is not possible to link the moneys received to the individuals who are, in the final analysis, contributing the tax. Collection statistics, as such, for this reason are not capable of being closely related to the persons who are being taxed and any statistical tables that attempt to describe the taxpayer, such as by occupation or income class, must be based on the income-tax return which is filed by the taxpayer many months after the payment of his tax. However, collection statistics, if interpreted along with the tax rate, do serve the purpose of indicating the general trend of income upon which tax is levied well in advance of the assessment data.

The statistics given in Table 1 represent collections on a government fiscal-year basis under the three Acts administered by the Taxation Division, Department of National Revenue.

### 1.—Taxes Collected by the Taxation Division of the Department of National Revenue, Years Ended Mar. 31, 1935-49

NOTE.—Figures for the years 1917-34 will be found at pp. 999-1000 of the 1947 Year Book;

Year Ended Mar. 31—	Income Tax			Excess Profits Tax	Succession Duties	Total Collections
	Individuals	Corporations	Total			
	\$	\$	\$	\$	\$	\$
1935.....	31,017,827	35,790,239	66,808,066	...	...	66,808,066
1936.....	40,190,832	42,518,971	82,709,803	...	...	82,709,803
1937.....	44,352,399	58,012,843	102,365,242	...	...	102,365,242
1938.....	50,596,927	69,768,605	120,365,532	...	...	120,365,532
1939.....	56,840,251	85,185,887	142,026,138	...	...	142,026,138
1940.....	56,528,564	77,920,002	134,448,566	...	...	134,448,566
1941.....	116,577,312	131,565,710	248,143,022	23,995,269	...	272,138,291
1942.....	324,407,318	185,835,699	510,243,017	135,168,345	6,956,574	652,367,936
1943.....	562,218,949	347,969,723	910,188,672 <sup>1</sup>	454,580,677 <sup>1</sup>	13,273,483	1,378,042,832
1944.....	840,378,321	311,378,714	1,151,757,035 <sup>1</sup>	468,717,840 <sup>1</sup>	15,019,831	1,635,494,706
1945.....	796,354,219	276,403,849	1,072,758,068 <sup>1</sup>	465,805,356 <sup>1</sup>	17,250,798	1,555,814,222
1946.....	719,895,733	217,833,540	937,729,273 <sup>1</sup>	494,196,483 <sup>1</sup>	21,447,574	1,453,373,330
1947.....	724,666,292	238,791,953	963,458,245 <sup>1</sup>	448,697,443 <sup>1</sup>	23,576,071	1,435,731,759
1948.....	695,717,243	364,131,114	1,059,848,357	227,030,494	30,828,040	1,317,706,891
1949.....	806,009,280	491,990,124	1,297,999,404	44,791,918	25,549,777	1,368,341,099

<sup>1</sup> Including refundable portion and therefore does not agree with the corresponding figures of columns 3 and 4, Table 10, p. 1010

### Subsection 2.—Individual Income-Tax Statistics

Individual income-tax statistics are presented herein on a taxation-year or calendar-year basis. These data are compiled from a 10 p.c. sample of all returns received and the figures are taken from the returns as declared by the taxpayer prior to any changes that may be made after scrutiny by the assessors.

#### 2.—Taxpayers, Income and Tax by Occupational Classes and Provinces, Taxation Year 1947

Class	Tax- payers	Total Income Declared	Total Tax Declared	Province	Tax- payers	Total Income Declared	Total Tax Declared
Occupational Class	No.	\$'000	\$'000	Province	No.	\$'000	\$'000
Primary producers.....	55,389	147,912	15,795	P. E. Island.....	5,370	12,175	1,273
Professional.....	23,046	133,438	29,361	Nova Scotia.....	76,892	173,192	17,847
Employees.....	2,060,946	4,404,072	402,659	New Brunswick....	55,305	122,091	11,894
Salesmen.....	20,800	80,024	12,081	Quebec.....	545,679	1,321,706	154,486
Business proprietors	140,997	565,124	98,170	Ontario.....	1,039,751	2,462,291	279,853
Financial.....	61,999	241,873	62,218	Manitoba.....	135,450	306,998	31,558
Estates.....	1,541	3,309	1,062	Saskatchewan.....	96,521	220,142	21,777
Deceased.....	1,137	4,145	883	Alberta.....	137,535	317,742	32,851
Unclassified.....	601	1,061	98	British Columbia..	271,953	639,986	70,255
				Yukon.....	2,000	4,635	533
<b>Totals.....</b>	<b>2,366,456</b>	<b>5,580,958</b>	<b>622,327</b>	<b>Totals.....</b>	<b>2,366,456</b>	<b>5,580,958</b>	<b>622,327</b>

#### 3.—Individual Income-Tax Statistics, Taxation Year 1947

Income Class	Taxpayers	Total Income Declared	Total Tax Declared	Average Tax
	No.	\$'000	\$'000	\$
Under \$800.....	32,160	24,017	233	7
\$800 to \$900.....	84,110	71,353	1,215	14
\$900 to \$1,000.....	97,020	92,074	2,924	30
Under \$1,000.....	213,290	187,444	4,372	20
\$1,000 to \$1,100.....	99,010	103,899	4,717	48
\$1,100 to \$1,200.....	94,710	108,928	6,260	66
\$1,200 to \$1,300.....	92,550	115,797	7,893	85
\$1,300 to \$1,400.....	86,070	116,277	9,123	106
\$1,400 to \$1,500.....	75,770	110,128	9,428	124
\$1,500 to \$1,600.....	96,860	150,647	10,738	111
\$1,600 to \$1,700.....	108,900	180,525	11,341	104
\$1,700 to \$1,800.....	119,760	210,591	12,194	102
\$1,800 to \$1,900.....	126,480	235,240	13,272	105
\$1,900 to \$2,000.....	125,160	245,626	14,019	112
\$1,000 but not including \$2,000.....	1,025,270	1,577,658	98,985	97
\$2,000 to \$2,100.....	115,990	239,771	14,172	122
\$2,100 to \$2,200.....	121,170	262,119	16,311	135
\$2,200 to \$2,300.....	103,640	235,149	15,434	149
\$2,300 to \$2,400.....	91,220	216,273	15,130	166
\$2,400 to \$2,500.....	80,980	200,074	14,777	182
\$2,500 to \$2,600.....	69,490	178,906	14,216	205
\$2,600 to \$2,700.....	60,900	162,800	13,598	223
\$2,700 to \$2,800.....	50,980	141,565	12,374	243
\$2,800 to \$2,900.....	42,010	121,028	11,061	263
\$2,900 to \$3,000.....	37,400	111,535	10,688	286
\$2,000 but not including \$3,000.....	773,780	1,869,220	137,761	178



**3.—Individual Income-Tax Statistics, Taxation Year, 1947—concluded**

Income Class	Taxpayers	Total Income Declared	Total Tax Declared	Average Tax
	No.	\$'000	\$'000	\$
\$3,000 to \$3,500.....	121,940	397,233	42,167	346
\$3,500 to \$4,000.....	64,460	243,172	29,684	461
\$4,000 to \$4,500.....	38,750	165,797	22,564	582
\$4,500 to \$5,000.....	24,650	117,781	17,497	710
<b>\$3,000 but not including \$5,000.....</b>	<b>249,800</b>	<b>923,983</b>	<b>111,912</b>	<b>448</b>
\$5,000 to \$6,000.....	30,200	165,183	26,728	885
\$6,000 to \$7,000.....	18,480	119,988	21,408	1,158
\$7,000 to \$8,000.....	12,360	92,975	18,095	1,464
\$8,000 to \$9,000.....	8,750	74,512	15,395	1,759
\$9,000 to \$10,000.....	6,400	60,892	13,376	2,090
<b>\$5,000 but not including \$10,000.....</b>	<b>76,190</b>	<b>513,550</b>	<b>95,002</b>	<b>1,247</b>
\$10,000 to \$15,000.....	16,240	195,433	49,503	3,048
\$15,000 to \$20,000.....	5,800	99,498	30,656	5,286
\$20,000 to \$25,000.....	2,527	56,239	19,826	7,846
<b>\$10,000 but not including \$25,000.....</b>	<b>24,567</b>	<b>351,170</b>	<b>99,985</b>	<b>4,070</b>
\$25,000 to \$50,000.....	2,772	92,504	38,626	13,934
\$50,000 to \$100,000.....	648	42,961	21,742	33,552
\$100,000 or over.....	139	22,468	13,942	100,302
<b>\$25,000 or over.....</b>	<b>3,559</b>	<b>157,933</b>	<b>74,310</b>	<b>20,879</b>
<b>Grand Totals.....</b>	<b>2,366,456</b>	<b>5,580,958</b>	<b>622,327</b>	<b>263</b>

**Subsection 3.—Corporation Income-Tax Statistics**

In the following tables, corporation statistics are presented on a taxation-year basis prior to assessment. The data have been extracted and compiled from the returns shortly after they have been filed and are as declared by the taxpayer without the scrutiny or revision of the Department of National Revenue. Provincial figures contain an unavoidable bias in favour of Ontario and Quebec, which is caused by the fact that many large companies which operate across Canada file their returns in one or other of these two provinces.

**4.—Summary Statistics for Corporations Reporting a Profit, Taxation Year 1947**

Item	Com- panies Reporting	Current Year Profit	Income Tax Declared	Excess Profits Tax Declared
	No.	\$'000	\$'000	\$'000
Active taxable companies—excluding co-operatives..	25,059	1,771,486	484,284	166,603
Inactive companies.....	419	164	26	2
Co-operatives.....	1,794	4,904	1,148	135
<b>Totals, Taxable Companies.....</b>	<b>27,272</b>	<b>1,776,554</b>	<b>485,458</b>	<b>166,740</b>
Personal corporations.....	736	6,135	—	...
Other exempt companies <sup>1</sup> .....	336	2,028	10	...
<b>Grand Totals—Taxable and Exempt.....</b>	<b>28,344</b>	<b>1,784,717</b>	<b>485,468</b>	<b>166,740</b>

<sup>1</sup> Includes resident owned foreign companies paying \$100 filing fee recorded here as tax declared.

**5.—Distribution of Active Taxable Companies Reporting a Profit, by Income Classes,  
Industrial Divisions and Provinces, Taxation Year 1947**

Class or Province	Com- panies Reporting	Current Year Profit	Income Tax Declared	Excess Profits Tax Declared
Income Class	No.	\$'000	\$'000	\$'000
Under \$1,000.....	3,774	1,661	378	37
\$ 1,000 to \$ 2,000.....	2,329	3,406	832	108
\$ 2,000 to \$ 3,000.....	1,669	4,116	1,018	151
\$ 3,000 to \$ 4,000.....	1,438	5,009	1,257	203
\$ 4,000 to \$ 5,000.....	1,228	5,524	1,402	231
\$ 5,000 to \$ 10,000.....	3,846	27,725	7,169	1,382
\$ 10,000 to \$ 15,000.....	2,225	27,604	7,211	1,462
\$ 15,000 to \$ 20,000.....	1,478	25,653	6,790	1,440
\$ 20,000 to \$ 25,000.....	944	21,170	5,558	1,425
\$ 25,000 to \$ 50,000.....	2,393	84,820	22,650	7,681
\$ 50,000 to \$ 100,000.....	1,535	109,096	29,677	10,996
\$ 100,000 to \$ 250,000.....	1,167	182,063	48,961	21,593
\$ 250,000 to \$ 500,000.....	531	185,645	50,892	20,699
\$ 500,000 to \$1,000,000.....	244	171,280	47,340	18,993
\$1,000,000 to \$5,000,000.....	217	425,550	116,143	42,316
\$5,000,000 or over.....	41	491,164	137,006	37,886
<b>Totals.....</b>	<b>25,059</b>	<b>1,771,486</b>	<b>484,284</b>	<b>166,603</b>
<b>Industrial Division</b>				
Agriculture, fishing and forestry.....	494	14,250	3,739	1,418
Mining.....	395	119,491	33,505	7,373
Manufacturing.....	7,340	991,445	278,343	89,773
Construction.....	1,041	21,180	5,718	1,548
Public utilities.....	1,251	147,883	41,740	8,104
Wholesale trade.....	4,093	149,718	41,127	16,087
Retail trade.....	4,816	172,266	42,359	31,412
Service.....	2,541	43,008	12,059	3,175
Finance.....	3,041	111,677	25,542	7,683
Unclassified.....	47	568	152	30
<b>Province</b>				
Prince Edward Island.....	162	4,669	913	295
Nova Scotia.....	936	30,138	8,396	2,574
New Brunswick.....	681	28,401	7,811	3,073
Quebec.....	6,615	559,823	155,143	43,082
Ontario.....	8,773	797,815	216,061	78,715
Manitoba.....	1,554	77,079	21,115	9,342
Saskatchewan.....	761	13,926	3,814	1,530
Alberta.....	1,471	46,147	12,061	4,772
British Columbia.....	4,106	213,488	58,970	23,220

**Section 2.—Succession Duties\***

The first imposition of succession duties in Canada was in 1892, when Nova Scotia, New Brunswick, Quebec and Ontario enacted legislation of this nature. Legislation was passed in the other provinces on the following dates: Manitoba, 1893; Prince Edward Island and British Columbia, 1894; Saskatchewan and Alberta, 1905.

Succession duties have grown to be an important if fluctuating part of provincial revenues and Table 6 shows the receipts from this source from 1921.

In 1947 seven provinces withdrew from the succession duties field as part of general agreements for the removal of duplication of direct taxation negotiated with the Federal Government. These agreements succeeded the expiring Wartime Tax Agreements, and followed the general terms of the offer set out in the Budget

\* Revised under the direction of Dr. A. K. Eaton, Assistant Deputy Minister, Department of Finance, Ottawa.

Speech of June 27, 1946. This offer was drawn up in such terms that any province could elect to enter or not to enter into an agreement with the Federal Government and, in respect of succession duties, provided that even a province that did enter into an agreement could, if it wished, retain its own levies. As previously mentioned, seven of the nine provinces, namely, Prince Edward Island, Nova Scotia, New Brunswick, Manitoba, Saskatchewan, Alberta and British Columbia, accepted this offer and elected to repeal their own succession duties for the period from Apr. 1, 1947, to Mar. 31, 1952. For this period, therefore, provincial succession duties will be limited to those provinces which have not accepted the Federal Government offer before the period expires.

The Federal Government provided in the 1946 Budget that, as from Jan. 1, 1947, the rates of federal duty would be doubled, and that where a provincial levy was continued a credit would be allowed against one-half of the federal duty for duty paid to a province. The existing situation, therefore, is that in provinces that have withdrawn their duties the previous combination of federal and provincial rates has been supplemented by a single federal duty at double the previous federal level, which in most cases results in the continuation of a total duty approximately the same as previously levied under the two duties combined. On the other hand, in the provinces that have not withdrawn their duties, the doubled rates of federal duty apply but may be reduced up to one-half by a credit for the duty paid to the province.

The Dominion Succession Duty Act was enacted as 4-5 Geo. VI, c. 14. Certain amendments were made to the Act by 5-6 Geo. VI, c. 25; 7-8 Geo. VI, c. 37; 8-9 Geo. VI, c. 18; and the doubling of rates and provision of the tax credit mentioned above by 10 Geo. VI, c. 46. Two important amendments were made to the Act in 1948. The former provision by which bequests to non-profit charitable organizations in Canada were exempt only up to 50 p.c. of the aggregate net value of the estate, was changed to remove this limit entirely. A second change exempted from duty all successions derived from an estate of an aggregate net value not exceeding \$50,000: formerly this exemption had applied only up to an aggregate net value of \$5,000. While estates in excess of \$50,000 remain dutiable in full, it was provided at the same time that in no case would the duty reduce the value of the estate below \$50,000.

Revenue from the federal duty is given in Table 6.

A common feature of both federal and provincial duties is the variation of rates by the degree of relationship of the beneficiary to the deceased. The four classes of beneficiaries that are established under federal law (see p. 1051) have, for example, specific rates that change with each classification, while in Ontario there are three classes of beneficiary with different rates of duty attached to each class. It is also a common feature of both federal and provincial Acts for an initial rate of duty to be charged based on the total value of the estate and an additional rate based on the bequest received by each individual. Thus, in the case of the Federal Government, a person who receives a bequest of \$50,000, say, out of an estate of \$500,000 is charged the rate for a \$500,000 estate plus an additional rate for \$50,000, and the total rate is then applied in calculating the tax on his bequest of \$50,000.

Double taxation of estates resulting from taxation of the same property by more than one province has been common in the past, but the withdrawal of seven of the provinces from the field will considerably reduce this problem. In the inter-



national field, dual taxation has been dealt with by way of tax conventions. Such a tax convention between Canada and the United States was signed on June 8, 1944. One of the terms of this convention is that shares in a corporation organized in or under the laws of the United States or any of the individual States shall be deemed to be property situated within the United States, and shares in a corporation organized in or under the laws of Canada, or of the provinces or territories of Canada, shall be deemed to be property situated within Canada.

An agreement respecting succession duties between Canada and the United Kingdom was signed June 5, 1946.

Under these circumstances, the difficulties of working out succession duty tables so as to show the combined effects of federal and provincial duties is realized. The best that can be done here is to choose typical estates in the main classes laid down in the legislation and give a picture of the combined duties applicable in such cases. This has been attempted in the following series of tables in the hope that it will be useful in presenting to the student of this subject a general knowledge of the incidence of succession duties in Canada under conditions existing at present.

#### 6.—Federal and Provincial Net Receipts from Succession Duties, Respective Fiscal Years Ended in 1921-48

NOTE.—The fiscal years of the provinces end on the following dates: P.E.I., Dec. 31 to 1942 and thereafter Mar. 31; N.S., Sept. 30 prior to 1935 and Nov. 30 thereafter; N.B., Oct. 31; Que., June 30 to 1940 and Mar. 31 thereafter; Ont., Oct. 31 prior to 1935 and Mar. 31 thereafter; Man., Apr. 30 prior to 1947 and Mar. 31 thereafter; Sask., Apr. 30 prior to 1947 and Mar. 31 thereafter; Alta. and B.C., Mar. 31.

Year	Federal	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
1921	...	10,569	158,972	151,326	2,100,456	4,821,811 <sup>1</sup>	457,563	331,370 <sup>2</sup>	177,415	342,259
1922	...	20,592	120,740	241,753	3,005,293	6,523,245 <sup>1</sup>	168,503	314,235 <sup>2</sup>	128,185	563,573
1923	...	9,165	222,679	152,609	2,620,337	3,858,260	290,850 <sup>3</sup>	280,985	164,087	682,919
1924	...	6,088	135,846	163,123	2,977,850	4,175,198	455,808	489,082	189,808	772,712
1925	...	15,289	258,408	290,530	2,423,149	5,786,893	592,257 <sup>3</sup>	287,698	463,096 <sup>4</sup>	708,880
1926	...	18,788	536,635	293,775	2,257,277	8,761,863	422,199	337,354	253,611	565,017
1927	...	8,587	188,385	461,386	3,653,898	9,468,950	757,489	295,192	471,859	701,737
1928	...	17,122	221,637	411,797	3,740,630	4,667,958	606,576	368,800	115,095 <sup>5</sup>	758,136
1929	...	29,325	290,457	319,600	4,183,577	6,610,382	732,697	410,626	383,103 <sup>6</sup>	735,990
1930	...	25,946	311,720	198,982	5,268,089	11,229,439	1,033,564	468,893	897,302	836,637
1931	...	11,640	256,415	293,941	6,916,637	9,504,814	452,023	323,007	552,990 <sup>7</sup>	558,790
1932	...	35,453	515,086	190,558	3,798,795	6,136,624	346,952	199,094	253,098	410,720
1933	...	30,713	262,925	208,586	3,070,138	8,081,322	267,078	177,376	470,741	535,808
1934	...	50,452	298,337	245,542	2,697,771	6,515,071	423,416	148,944	256,850	382,650
1935	...	19,839	462,733 <sup>8</sup>	415,040	3,401,574	3,469,467 <sup>7</sup>	304,214	223,211	292,701	979,401
1936	...	42,811	566,856	618,985	4,697,618	11,984,720	375,045	324,328	270,901	1,067,101
1937	...	45,380	606,367	398,103	7,636,875	15,991,851	463,963	311,019	342,841	825,047
1938	...	67,782	745,997	318,947	11,837,572	20,214,183	403,878	240,809	1,326,346	1,261,091
1939	...	75,312	557,221	177,276	12,277,427	15,314,854	605,426	375,585	372,169	703,780
1940	...	44,036	550,057	526,056	12,404,322	11,500,282	875,449	352,427	374,996	1,161,975
1941	...	42,662	409,632	383,428 <sup>9</sup>	5,014,773 <sup>8</sup>	11,172,484	603,328	261,849	415,156	888,860
1941 <sup>10</sup>	6,956,574 <sup>10</sup>	42,662	409,632	383,425	12,201,557	11,676,453	737,393	345,913	673,058	760,768
1942	13,273,483	56,767	688,427	221,909	12,075,952	11,636,058	538,698	405,710	458,702	818,321
1943	15,019,830	46,143	662,188	599,877	7,796,154	13,320,867	341,223	480,684	684,956 <sup>11</sup>	1,449,789
1944	17,250,798	82,120 <sup>11</sup>	508,718	364,778	6,504,608	12,783,119	334,886	501,070	903,302 <sup>12</sup>	1,870,507
1945	21,447,573	108,893	881,686	677,455	5,381,806	12,524,929	649,680	648,154	1,129,881 <sup>13</sup>	1,723,092
1946	23,576,071	92,617	667,364	1,072,414	6,298,837	15,227,470 <sup>14</sup>	767,275	669,610	855,433	2,918,920
1947	30,828,040	63,568	368,029	431,716	11,363,143	17,944,532	809,365 <sup>15</sup>	507,513	652,171 <sup>16</sup>	1,048,501
1948	25,549,777	62,633	215,654	52,508	11,834,802	15,994,839	403,247	121,239	149,048	398,362

<sup>1</sup> Includes "Funds in lieu of Succession Duties".

<sup>2</sup> Includes "Succession Duties Act" fees.

<sup>3</sup> Eight months.

<sup>4</sup> Revised since the publication of the 1948-49 Year Book.

<sup>5</sup> Three months.

<sup>6</sup> Fourteen months.

<sup>7</sup> Five months.

<sup>8</sup> Nine months.

<sup>9</sup> Figures below the rule are

for fiscal years ended nearest to Dec. 31 of year stated; due to changes in the provincial fiscal years, figures are given in several cases for broken periods.

<sup>10</sup> Ten months; Act came into force June 14, 1941.

<sup>11</sup> Fifteen months.

<sup>12</sup> Eleven months.

**Federal Duty.**—Beneficiaries are divided into four classes, as follows:—

- (1) Widow or dependent child or dependent grandchild.
- (2) Husband; parent; grandparent; child over 18 years of age, not infirm; son- or daughter-in-law.
- (3) Lineal ancestor other than parent or grandparent; brother, sister or their descendant; uncle or aunt or their descendant.
- (4) Others.

No duty is payable on estates not exceeding \$50,000, or on bequests up to \$1,000 to any one individual, nor is duty levied on gifts to the Federal Government or provinces, on residential property of certain diplomatic or consular officials, on pensions administered by the Canadian Pensions Commission or those payable by Allied Nations for war services nor on insurance moneys or annuities if the assured or person with whom contract was made was domiciled outside Canada at the time of death. Provision is made for increased exemptions and reduced duties in the case of those dying as a result of war service. Bequests to non-profit charitable organizations in Canada are exempt.

Widows are exempt up to \$20,000, dependent children to \$5,000 each and, in cases where dependent children do not benefit, the widow's exemption is increased by \$5,000 for each child who does not benefit. In the case of dependent orphaned children, there is a further exemption of \$15,000 (in addition to \$5,000) divisible proportionately among such orphans according to their number and the value of each individual benefit. Duty is payable on the excess only when the limit is passed, i.e., these exemptions are deductible exemptions.

Gifts made during the lifetime are exempt if the transfer was carried out more than three years prior to the death of the deceased and the recipient of such gifts secured full possession at the time of the transfer and the donor (the deceased) thereafter did not retain any rights therein or secure any benefits therefrom.

If gift tax payable under the provisions of the Income Tax Act has been paid in connection with the transfer made by a deceased person during his lifetime then no succession duty is payable in respect of such gift except to the extent that succession duty thereon is in excess of the gift tax.

Examples of the rates of duty and duty levied are given in Table 7.

**7.—The Incidence of Succession Duties in all Provinces (except Quebec and Ontario) on Typical Estates**

Class	Aggregate Net Value	Dutiable Value	Rate	Duty
	\$	\$	p.c.	\$
A. Widow only.....	60,000	40,000	10·6	4,240
	100,000	80,000	14·7	11,760
	300,000	280,000	26·7	74,760
	500,000	480,000	32·7	156,960
	1,000,000	980,000	38·7	379,260
B. Only child over 18 years.....	60,000	60,000	11·9	7,140
	100,000	100,000	16·7	16,700
	300,000	300,000	28·7	86,100
	500,000	500,000	34·7	173,500
	1,000,000	1,000,000	40·7	407,000
C. Brother or sister.....	60,000	60,000	13·9	8,340
	100,000	100,000	18·7	18,700
	300,000	300,000	30·7	92,100
	500,000	500,000	36·7	183,500
	1,000,000	1,000,000	42·7	427,000
D. Stranger.....	60,000	60,000	15·9	9,540
	100,000	100,000	20·7	20,700
	300,000	300,000	32·7	98,100
	500,000	500,000	38·7	193,500
	1,000,000	1,000,000	44·7	447,000

**The Incidence of Combined Federal and Provincial Succession Duties.** — Under the new tax agreements outlined at pp. 1048-1049, only the Provinces of Quebec and Ontario, which have not entered the agreement, have retained their own succession duties. As already mentioned, the other seven provinces elected to repeal their succession duties for the period from Apr. 1, 1947, to Mar. 31, 1952. As a consequence, the tables showing combined rates of federal and provincial duty for each province, which appeared at pp. 942-950 of the 1946 Year Book, have been deleted with the exception of those for the two above-mentioned provinces. The new condition of doubled federal duties and a tax credit up to 50 p.c. for the provincial duty has been taken into account in Tables 8 and 9. The rates under the heading "Dominion Duty" shown in the 1946 Year Book have been doubled and under "Combined Duty" the greater of (1) the amount of the federal duty (doubled rates), or (2) the provincial duty plus one-half the federal duty, is given.

In these two tables, the beneficiaries under all the classes show the duties collectable where the estate of given value is left to one beneficiary only, since it would be impossible to cover the many different classifications, exemptions and saving clauses to be found in the legislation of the respective provinces. In every case the estate is assumed to be wholly situated within the province and the beneficiary domiciled therein to be the sole heir. The reader is referred to the legislation and to the taxing authority shown under each provincial heading for more complete information.

*Quebec.*—The current legislation under which succession duties are collected is c. 18 of 1943. As stated at p. 1050, the following text and table can give only a broad outline of such duties as applied to comparable classes of beneficiaries in other provinces. Full details regarding other cases may be obtained from the Act quoted or from the Collector of Succession Duties, Provincial Revenue Offices, Quebec.

Under the legislation, beneficiaries are divided into three classes, as follows:—

- (1) Those in direct ascending or descending line between consort, between father- or mother-in-law, and son- and daughter-in-law, between step-father or step-mother and step-son and step-daughter. There is no limitation of degree in the direct ascending or descending line between these relationships.
- (2) Those in collateral line including a brother or sister, or descendant of a brother or sister of the deceased, or to a brother or sister, or son or daughter of a brother or sister, of the father or mother of the deceased.
- (3) Others.

No duty is payable when the aggregate value of the property passing to persons in Class (1) does not exceed \$10,000. This sum is increased by \$1,000 for each child who has survived or has left surviving descendants. No duty is payable on bequests up to \$1,000 to beneficiaries in Class (3) who have been in the employ of the testator for five years or more. In estates that devolved prior to Feb. 22, 1949, no duty is payable on legacies for religious, charitable or educational purposes in Quebec and the same privilege is extended to legacies for similar work outside that Province, provided that the province or State within which the work is to be carried out extends reciprocal privileges under its succession duty laws. Since February, 1949, all legacies, gifts and subscriptions for religious, charitable and educational purposes are tax-free, regardless of the country, province or State where the institutions benefiting therefrom are located.



## 8.—The Incidence of Federal and Quebec Succession Duties on Typical Estates

Class	Aggregate Net Value	Federal Duty <sup>1</sup>			Provincial Duty			Combined Duties <sup>1</sup>
		Dutiable Value	Rate	Duty	Dutiable Value	Rate	Duty	
	\$	\$	p.c.	\$	\$	p.c.	\$	\$
A. Widow only.....	20,000	—	—	—	20,000	2-80	560	560
	25,000	—	—	—	25,000	3-00	750	750
	50,000	—	—	—	50,000	4-00	2,000	2,000
	60,000	40,000	10-60	4,240	60,000	5-60	3,360	7,140
	100,000	80,000	14-70	11,760	100,000	8-00	8,000	13,880
	300,000	280,000	26-70	74,760	300,000	12-00	36,000	74,760
	500,000	480,000	32-70	156,960	500,000	15-50	77,500	156,960
	1,000,000	980,000	38-70	379,260	1,000,000	23-00	230,000	419,630
B. Only child over 13 years.....	20,000	—	—	—	20,000	2-80	560	560
	25,000	—	—	—	25,000	3-00	750	750
	50,000	—	—	—	50,000	4-00	2,000	2,000
	60,000	60,000	11-90	7,140	60,000	5-60	3,360	7,140
	100,000	100,000	16-70	16,700	100,000	8-00	8,000	16,700
	300,000	300,000	28-70	86,100	300,000	12-00	36,000	86,100
	500,000	500,000	34-70	173,500	500,000	15-50	77,500	173,500
	1,000,000	1,000,000	40-70	407,000	1,000,000	23-00	230,000	433,500
C. Brother or sister...	20,000	—	—	—	20,000	7-80	1,560	1,560
	25,000	—	—	—	25,000	8-50	2,125	2,125
	50,000	—	—	—	50,000	12-00	6,000	6,000
	60,000	60,000	13-90	8,340	60,000	13-40	8,040	12,210
	100,000	100,000	18-70	18,700	100,000	16-00	16,000	25,350
	300,000	300,000	30-70	92,100	300,000	19-00	57,000	103,050
	500,000	500,000	36-70	183,500	500,000	21-67	108,350	200,100
	1,000,000	1,000,000	42-70	427,000	1,000,000	28-33	283,300	496,800
D. Stranger.....	20,000	—	—	—	20,000	14-00	2,800	2,800
	25,000	—	—	—	25,000	14-50	3,625	3,625
	50,000	—	—	—	50,000	17-00	8,500	8,500
	60,000	60,000	15-90	9,540	60,000	18-00	10,800	15,570
	100,000	100,000	20-70	20,700	100,000	22-00	22,000	32,350
	300,000	300,000	32-70	98,100	300,000	25-75	77,250	126,300
	500,000	500,000	38-70	193,500	500,000	28-25	142,250	239,000
	1,000,000	1,000,000	44-70	447,000	1,000,000	34-50	345,000	568,500

<sup>1</sup> The rates of federal duty shown are those actually applied but a credit may be made to the taxpayer up to one-half of this amount on account of duty paid to the provinces, see p. 1049.

*Ontario.*—The current legislation on succession duties is c. 1 of 1939 (Second Session) as amended, and full information may be obtained on application to the Succession Duty Office, Treasury Department, Parliament Buildings, Toronto.

Beneficiaries are divided into three classes, as follows:—

- (1) Widow; child; husband; parent; grandparent; grandchild; son- or daughter-in-law.
- (2) Brother; sister; nephew; niece; uncle; aunt; cousin; child of nephew or niece.
- (3) Others.

No duty is payable on estates not exceeding \$5,000 in aggregate value, nor on estates not exceeding \$50,000 devised to persons in Class (1), nor on those not exceeding \$10,000 devised to persons in Class (2). Where the aggregate value of an estate does not exceed \$50,000 the shares in such an estate passing to beneficiaries in Class (1) are exempt from duty. The same rule applies to shares of beneficiaries in Class (2) where the aggregate value does not exceed \$10,000.

Where any person in Class (3) was in the employ of the deceased for at least five years immediately prior to his death, no duty is payable with respect to any benefits which such person derived from the deceased where the total value of such benefits is not in excess of \$1,000. Such benefits however, while exempt, are nevertheless taken as a factor in fixing the rates applicable to the dutiable portions of the estate.

Requests for religious purposes to any religious organization which carries on its work solely in Canada, and charitable or educational purposes to any charitable or educational organization which carries on its work solely in Ontario are exempt from duty and are altogether ignored in the computation of duty on the portions of the estate that are not exempt. The same rule applies to the Canadian National Institute for the Blind, the Canadian Red Cross Society and other approved patriotic organizations.

### 9.—The Incidence of Federal and Ontario Succession Duties on Typical Estates

Class	Aggregate Net Value	Federal Duty <sup>1</sup>			Provincial Duty			Combined Duties <sup>1,2</sup>
		Dutiable Value	Rate	Duty	Dutiable Value	Rate	Duty	
	\$	\$	p.c.	\$	\$	p.c.	\$	\$
A. Widow only.....	20,000	—	—	—	—	—	—	—
	25,000	—	—	—	—	—	—	—
	50,000	—	—	—	—	—	—	—
	60,000	40,000	10-60	4,240	60,000	4-60	3,174 <sup>3</sup>	5,294
	100,000	80,000	14-70	11,760	100,000	7-50	8,625 <sup>3</sup>	14,505
	300,000	280,000	26-70	74,760	300,000	10-00	34,500 <sup>3</sup>	74,760
	500,000	480,000	32-70	156,960	500,000	12-50	71,875 <sup>3</sup>	156,960
	1,000,000	980,000	38-70	379,260	1,000,000	18-00	207,000 <sup>3</sup>	396,630
B. Only child over 18 years.....	20,000	—	—	—	—	—	—	—
	25,000	—	—	—	—	—	—	—
	50,000	—	—	—	50,000	2-50	1,438 <sup>3</sup>	1,438
	60,000	60,000	11-90	7,140	60,000	4-60	3,174 <sup>3</sup>	7,140
	100,000	100,000	16-70	16,700	100,000	7-50	8,625 <sup>3</sup>	16,975
	300,000	300,000	28-70	86,100	300,000	10-00	34,500 <sup>3</sup>	86,100
	500,000	500,000	34-70	173,500	500,000	12-50	71,875 <sup>3</sup>	173,500
	1,000,000	1,000,000	40-70	407,000	1,000,000	18-00	207,000 <sup>3</sup>	410,500
C. Brother or sister...	20,000	—	—	—	20,000	8-60	2,064 <sup>4</sup>	2,064
	25,000	—	—	—	25,000	9-15	2,744 <sup>4</sup>	2,744
	50,000	—	—	—	50,000	11-90	7,140 <sup>4</sup>	7,140
	60,000	60,000	13-90	8,340	60,000	13-00	9,360 <sup>4</sup>	13,530
	100,000	100,000	18-70	18,700	100,000	15-20	18,240 <sup>4</sup>	27,590
	300,000	300,000	30-70	92,100	300,000	18-00	64,800 <sup>4</sup>	110,850
	500,000	500,000	36-70	183,500	500,000	20-50	123,000 <sup>4</sup>	214,750
	1,000,000	1,000,000	42-70	427,000	1,000,000	26-00	312,000 <sup>4</sup>	525,500
D. Stranger.....	20,000	—	—	—	20,000	13-10	3,275 <sup>5</sup>	3,275
	25,000	—	—	—	25,000	13-40	4,187 <sup>5</sup>	4,187
	50,000	—	—	—	50,000	15-00	9,375 <sup>5</sup>	9,375
	60,000	60,000	15-90	9,540	60,000	15-50	11,625 <sup>5</sup>	16,395
	100,000	100,000	20-70	20,700	100,000	17-50	21,875 <sup>5</sup>	32,225
	300,000	300,000	32-70	98,100	300,000	22-50	84,375 <sup>5</sup>	133,425
	500,000	500,000	38-70	193,500	500,000	27-50	171,875 <sup>5</sup>	268,625
	1,000,000	1,000,000	44-70	447,000	1,000,000	35-00	437,500 <sup>5</sup>	661,000

<sup>1</sup> The rates of federal duty shown are those actually applied but a credit may be made to the taxpayer up to one-half of this amount on account of duty paid to the provinces, see p. 1049.

on provincial duty.

<sup>3</sup> Includes a surtax of 15 p.c.

<sup>4</sup> Includes a surtax of 20 p.c.

<sup>5</sup> Includes

a surtax of 25 p.c.

# CHAPTER XXV.—CURRENCY AND BANKING; MISCELLANEOUS COMMERCIAL FINANCE

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

In this Chapter are assembled the statistics regarding financial institutions and transactions, other than those pertaining to insurance: the latter are dealt with separately in Chapter XXVI. Operating profits of corporations and net income to stockholders formerly dealt with in this Chapter will be found at pp. 395-398.

## PART I.—CURRENCY AND BANKING

### Section 1.—Historical Sketch

At pp. 900-905, inclusive, of the 1938 Year Book there appears a historical sketch of currency and banking in Canada, tracing certain features of the central banking system that finally led up to the establishment of the Bank of Canada. In chronological order these were:—

(1) *Central Note Issue*, permanently established with the issue of Dominion notes under legislation of 1868.

(2) *The Canadian Bankers' Association*, established in 1900 and designed to effect greater co-operation among the banks in the issue of notes, in credit control and in various aspects of bank activities.

(3) *The Central Gold Reserves*, established by the Bank Act of 1913.

(4) *Rediscount Facilities*, although originated as a war measure by the Finance Act of 1914, were made a permanent feature of the system by the Finance Act of 1923, which empowered the Minister of Finance to issue Dominion notes to the banks on the deposit by them of approved securities. This legislation provided the banks with a means of increasing their legal tender cash reserves at will.



## Section 2.—The Bank of Canada

### Subsection 1.—The Bank of Canada Act and Its Amendments

The Bank of Canada was incorporated in 1934 and commenced operations on Mar. 11, 1935. An account of the capital structure of the Bank and its transition from a privately owned institution to a wholly government-owned one is given at p. 800 of the 1941 Year Book.

The Bank is authorized to pay cumulative dividends of  $4\frac{1}{2}$  p.c. per annum from its profits after making such provision as the Board thinks proper for bad and doubtful debts, depreciation in assets, pension funds, and all such matters as are properly provided for by banks. The remainder of the profits will be paid into the Consolidated Revenue Fund of Canada and to the Rest Fund of the Bank in specified proportions until the Rest Fund is equal to the paid-up capital, when all the remaining profits will be paid into the Consolidated Revenue Fund.

The Bank may buy and sell securities of the Federal and Provincial Governments without restriction if of a maturity not exceeding two years, and in limited amounts if of longer maturity; short-term securities of the Federal and Provincial Governments may be rediscounted. It may also buy and sell short-term securities of Commonwealth countries, the United States or France without restriction if maturing within six months, and such securities having a maturity exceeding six months in limited amounts. The Bank may buy and sell certain classes of commercial paper of limited currency, and, if endorsed by a chartered bank, may rediscount such commercial paper. Advances for six-month periods may be made to chartered banks, Quebec Savings Banks, the Federal Government or any Provincial Government against certain classes of collateral, and advances of specified duration may be made to the Federal Government or any Provincial Government in amounts not exceeding a fixed proportion of such government's revenue. The Bank may accept from the Federal or Provincial Governments, or from any chartered bank or any bank incorporated under the Quebec Savings Banks' Act, deposits that do not bear interest. The Bank may buy and sell gold, silver, nickel and bronze coin, and gold and silver bullion, and may deal in foreign exchange.

The provisions regarding the note issue of the Bank of Canada are dealt with at p. 1060.

The Bank of Canada Act (24-25 Geo. V, c. 43 and amendments) provides that the Bank shall maintain a reserve of gold equal to not less than 25 p.c. of its total note and deposit liabilities in Canada. Under the terms of the Exchange Fund Order, 1940, authorizing the transfer of the Bank's gold holdings to the Foreign Exchange Control Board, the minimum gold reserve requirement has been temporarily suspended; this suspension was continued under the Foreign Exchange Control Act, 1946. The reserve, in addition to gold, may include silver bullion; balances in pounds sterling in the Bank of England, in United States dollars in the Federal Reserve Bank of New York, and in gold currencies in central banks in gold-standard countries or in the Bank for International Settlements; treasury bills of the United Kingdom or the United States of America having a maturity not exceeding three months; and bills of exchange having a maturity not exceeding 90 days, payable in London or New York, or in a gold-standard country, less any liabilities of the Bank payable in the currency of the United Kingdom, the United States of America or a gold-standard country. In accordance with the terms of the Foreign Exchange Acquisition Order, 1940, the Bank of Canada sold foreign exchange with a Canadian dollar value of \$27,734,444 to the Foreign Exchange Control Board.

The chartered banks are required to maintain a reserve of not less than 5 p.c. of their deposit liabilities, payable in Canadian dollars, in the form of deposits with, and notes of, the Bank of Canada.

The Bank acts as the fiscal agent of Canada without charge and may, by agreement, act as banker or fiscal agent of any province. The Bank does not accept deposits from individuals and does not compete with the chartered banks in commercial banking fields.

The head office of the Bank is at Ottawa, and it has an agency in each province, namely, at St. John's, Charlottetown, Halifax, Saint John, Montreal, Toronto, Winnipeg, Regina, Calgary and Vancouver.

The Governor of the Bank is its chief executive officer and Chairman of the Board of Directors; he is assisted by a Deputy Governor and an Assistant Deputy Governor. The first appointments were made by the Government. Subsequent appointments are to be made by the Board of Directors subject to the approval of the Governor in Council.

At the first meeting of the shareholders on Jan. 23, 1935, seven directors were elected with terms as follows: one director, until the third annual general meeting (1938); two, until the fourth (1939); two, until the fifth (1940); and two, until the sixth annual general meeting (1941). Former directors continued in office when the Government took over the management of the Bank but directors are now appointed by the Minister of Finance with the approval of the Governor in Council for terms of three years. In 1948 there were eleven directors.\* In the transaction of the business of the Bank, each director has one vote.

There is also an Executive Committee of the Board of Directors consisting of the Governor, Deputy Governor and one member of the Board, which must meet once a week. This Committee has the same powers as the Board but every decision is submitted to the Board of Directors at its next meeting. The Board must meet at least four times a year. The Deputy Minister of Finance is an ex officio member of the Board of Directors and of the Executive Committee, but is without vote.

The Governor alone, or in his absence the Deputy Governor, has the power to veto any action or decision of the Board of Directors or the Executive Committee, subject to confirmation or disallowance by the Governor in Council.

### **Subsection 2.—The Bank of Canada and Its Relationship to the Canadian Financial System**

An article under this title is given at pp. 881-885 of the 1937 edition of the Year Book. It deals with such subjects as the functions of the Bank, its control and regulation of credit and currency, the mechanism by which such control is exercised, the expansion and contraction of credit, the mitigation of general economic fluctuations, the control of exchange operations, the advisory function of the Bank, and its duties as the Government's banker. An article on the wartime functions of a central bank appears at pp. 803-806 of the 1942 Year Book.

### **Subsection 3.—Bank of Canada Operations**

The expansion of Bank of Canada liabilities and assets has provided for increased Bank of Canada notes in active circulation (the chartered bank-note issue is limited and is gradually being retired) and has enlarged the cash reserves of the chartered banks. The principal changes in Bank of Canada assets since April, 1938, have been (a) the rise in investments, partly to replace the gold and foreign-exchange

\* The number of directors was increased to 12 in 1949.

holdings transferred to the Foreign Exchange Control Board under the terms of the Exchange Fund Order and Foreign Exchange Acquisition Order, dated Apr. 30, 1940, and (b) the fluctuations in holdings of sterling exchange through which the Bank has temporarily financed Canadian dollar requirements of the Foreign Exchange Control Board.

### 1.—Assets and Liabilities of the Bank of Canada, Mar. 13, 1935, and Dec. 31, 1946-48

SOURCE: Annual Statements of the Bank of Canada.

Item	Mar. 13, 1935	Dec. 31, 1946	Dec. 31, 1947	Dec. 31, 1948
	\$	\$	\$	\$
<b>Assets</b>				
Reserves (at market values)—				
Gold coin and bullion.....	106,584,356	1	1	1
Silver bullion.....	986,363	—	—	—
Sterling and U.S.A. dollars.....	394,875	960,131	1,958,591	419,634
Other currencies.....	—	—	226,483	53,208
Totals, Reserves.....	107,965,594	960,131 <sup>1</sup>	2,185,074 <sup>1</sup>	472,842 <sup>1</sup>
Subsidiary coin.....	297,335	345,465	131,437	107,283
Investments (at not exceeding market values)—				
Federal and Provincial Government short-term securities.....	84,846,294	1,197,436,208	1,022,024,822	1,233,675,519
Other Federal and Provincial Government securities.....	115,013,637	708,164,801	857,529,340	779,070,636
Totals, Investments.....	149,859,931	1,905,601,009	1,879,554,162	2,012,746,155
Industrial Development Bank capital stock..	—	15,000,000	25,000,000	25,000,000
Bank premises.....	—	2,438,215	2,341,722	2,532,498
All other assets.....	1,191,897	24,271,461	16,008,084	17,750,812
<b>Totals, Assets.....</b>	<b>259,314,757</b>	<b>1,948,616,281</b>	<b>1,925,220,479</b>	<b>2,058,609,590</b>
<b>Liabilities</b>				
Capital paid up.....	4,991,640	5,000,000	5,000,000	5,000,000
Res. fund.....	—	10,050,367	10,050,367	10,050,367
Notes in circulation.....	97,805,665	1,186,201,681	1,211,350,386	1,289,080,333
Deposits—				
Federal Government.....	4,212,200	81,468,167	87,607,699	117,174,107
Chartered banks.....	151,927,628	566,469,559	536,161,793	547,345,654
Other.....	277,922	93,800,975	67,533,489	81,009,500
Totals, Deposits.....	156,417,750	740,738,701	691,292,981	745,529,261
Liabilities payable in sterling, United States and foreign gold currencies.....	—	960,131	1,978,667	419,634
Dividends declared.....	—	112,500	112,500	112,500
Other liabilities.....	99,702	5,552,901	5,435,578	8,417,495
<b>Totals, Liabilities.....</b>	<b>259,314,757</b>	<b>1,948,616,281</b>	<b>1,925,220,479</b>	<b>2,058,609,590</b>

<sup>1</sup> The Exchange Fund Order, 1940, authorized the transfer of the Bank's gold holdings to the Foreign Exchange Control Board and temporarily suspended the requirement for a minimum gold reserve.

### Subsection 4.—The Industrial Development Bank

The Industrial Development Bank, a subsidiary of the Bank of Canada, was incorporated by Act of Parliament during 1944, commencing its banking operations on Nov. 1, 1944. Its functions are described in the preamble to the Act as follows:—

“To promote the economic welfare of Canada by increasing the effectiveness of monetary action through ensuring the availability of credit to industrial enterprises which may reasonably be expected to prove successful if a high level of national income and employment is maintained, by supplementing the activities of other lenders and by providing capital assistance to industry with particular consideration to the financing problems of small enterprises.”

The President of the Industrial Development Bank is the Governor of the Bank of Canada and the Directors are the Directors and Assistant Deputy Governor of the Bank of Canada. The \$25,000,000 capital stock of the Bank, now completely



paid up, was subscribed by the Bank of Canada. The Industrial Development Bank may also raise funds by the issue of bonds and debentures provided that its total direct liabilities and contingent liabilities in the form of guarantees and underwriting agreements do not exceed three times the aggregate of the Bank's paid-up capital and Reserve Fund.

The lending powers of the Bank may be extended only to industrial enterprises in Canada with respect to which it is empowered to:—

- (1) lend money or guarantee loans;
- (2) enter into underwriting agreements with regard to any issue of stock, bonds or debentures;
- (3) acquire stock, bonds or debentures from the issuing corporation or any person with whom the Bank has entered into an underwriting agreement.

The Bank may accept any form of collateral security against its advances, including real property.

The Industrial Development Bank is intended to supplement the activities of other lending agencies rather than to compete with them and the Act of incorporation requires that it should extend credit only when the Board of Directors is of the opinion that similar credit would not be available elsewhere on reasonable terms and conditions. The Bank is specifically prohibited from engaging in the business of deposit banking.

Authorized and outstanding loans of the Industrial Development Bank as at Mar. 31, 1949, are classified by provinces, size of loans and industries in Table 2. The monthly statement of assets and liabilities of the Bank for Dec. 31, 1949, showed outstanding loans and investments at that date of \$21,068,627.

## 2.—Authorized and Outstanding Loans and Investments of the Industrial Development Bank, by Provinces, Size and Industries, as at Mar. 31, 1949

Province	Authorized	Outstanding	Industry	Authorized	Outstanding
	\$	\$		\$	\$
Prince Edward Island.....	45,000	36,940	Foods and beverages.....	4,058,133	3,026,806
Nova Scotia.....	451,515	327,500	Rubber products.....	25,000	25,000
New Brunswick.....	830,000	557,727	Leather products.....	620,500	519,237
Quebec.....	10,161,771	7,457,645	Textile products (except clothing).....	2,422,615	1,636,792
Ontario.....	11,157,567	9,148,676	Clothing (textiles and fur).....	578,500	435,359
Manitoba.....	1,312,250	1,006,284	Wood products.....	3,810,193	2,716,024
Saskatchewan.....	1,045,158	182,308	Paper products (including pulp).....	4,000,700	3,644,817
Alberta.....	2,292,200	1,453,164	Printing, publishing and allied industries.....	1,183,500	955,593
British Columbia <sup>1</sup> .....	4,199,591	2,311,482	Iron and steel products (including machinery and equipment).....	4,040,425	2,755,381
<b>Canada.....</b>	<b>31,495,052<sup>2</sup></b>	<b>22,481,726</b>	Transportation equipment	1,015,250	847,859
<b>Size of Loan</b>	<b>No.</b>	<b>Authorized</b>	Non-ferrous metal products.....	22,500	9,736
		\$	Electrical apparatus and supplies.....	380,000	315,125
\$5,000 or under.....	19	72,670	Non-metallic mineral products.....	2,114,928	1,349,534
\$5,001 to \$25,000.....	180	2,659,895	Products of petroleum and coal.....	1,536,000	594,491
\$25,001 to \$50,000.....	73	2,882,234	Chemical products.....	2,215,000	1,989,701
\$50,001 to \$100,000.....	80	5,825,899	Miscellaneous manufacturing industries.....	719,000	413,088
\$100,001 to \$200,000.....	46	7,054,076	Refrigeration.....	2,657,808	1,175,683
\$200,001 or over.....	22	13,000,278	Generating or distributing of electricity.....	95,000	71,500
<b>Totals.....</b>	<b>420</b>	<b>31,495,052<sup>2</sup></b>	<b>Totals.....</b>	<b>31,495,052<sup>2</sup></b>	<b>22,481,726</b>

<sup>1</sup> Includes Yukon and the Northwest Territories.

<sup>2</sup> Net authorizations were \$27,616,518 of which those in excess of \$200,000 totalled \$11,814,548, because of partial repayments on account of current authorizations.

## Section 3.—Currency

### Subsection 1.—Notes and Coinage

**Note Circulation.**—The development by which bank notes became the chief circulating medium in Canada prior to 1935 is described at pp. 900-905 of the 1938 Year Book. The main steps of this development that remained as permanent features of the system are outlined at pp. 809-810 of the 1941 Year Book.

When the Bank of Canada commenced operations in 1935 it assumed liability for Dominion notes outstanding. These were replaced in public circulation and partly replaced in cash reserves by the Bank's legal tender notes in denominations of \$1, \$2, \$5, \$10, \$20, \$50 and \$100. Deposits of chartered banks at the Bank of Canada completed the replacement of the old Dominion notes of \$1,000 to \$50,000 denomination that had previously been used as cash reserves.

The chartered banks were required under the Bank Act of 1934 to reduce the issue of their own bank notes gradually during the years 1935-45 to an amount not in excess of 25 p.c. of their paid-up capital on Mar. 11, 1935. Bank of Canada notes thus replaced chartered bank notes as the issue of the latter was reduced. Further restrictions introduced by the 1944 revision of the Bank Act cancelled the right of chartered banks to issue or reissue any notes after Jan. 1, 1945, and after January, 1950, the chartered banks' liability for such of their notes as then remained outstanding was transferred to the Bank of Canada in return for payment of a like sum to the Bank of Canada.

As a result of the changes indicated above, data since 1935 on bank-note circulation are not comparable with those of earlier years though statistics of total notes in the hands of the general public are comparable. This public circulation includes chartered bank notes together with Dominion or Bank of Canada notes, exclusive of those held by the banks as reserves.

Since 1935 there has been little change in the circulation of denominations under \$5. In most of the denominations from \$5 to \$100, where Bank of Canada notes have largely replaced chartered bank notes or Dominion notes, there has been a decided increase.

### 3.—Denominations of Bank of Canada, Dominion and Other Notes in Circulation for Certain Years, 1926-48

NOTE.—Annual averages of month-end figures. The totals outstanding are not always multiples of the denominations of notes because of adjustments made according to scale when parts of mutilated notes are turned in for cancellation.

Denomination	1926	1929	1945	1946	1947	1948
	\$	\$	\$	\$	\$	\$
\$1.....	17,732,100	20,032,308	40,577,111	41,241,696	42,333,444	44,333,321
\$2.....	12,925,212	14,609,088	31,024,976	31,889,923	32,267,026	33,376,393
\$4.....	33,397	32,138	28,838	28,831	28,829	28,825
\$5.....	626,179	730,101	102,603,827	102,390,902	101,204,684	101,580,468
\$10.....	—	—	403,777,675	391,899,105	391,716,339	402,751,820
\$20.....	—	—	266,684,012	280,872,417	284,105,734	302,582,290
\$25.....	—	—	43,977	47,073	46,683	46,633
\$50.....	650	650	75,590,344	89,303,404	95,227,990	100,026,467
\$100.....	—	—	137,953,983	168,910,387	196,214,333	217,431,683
\$500.....	1,875,917	1,811,875	457,917	402,875	345,000	293,542
\$1,000.....	3,799,250	4,168,917	19,024,083	17,779,166	17,145,750	15,701,833
Totals.....	36,992,705	41,385,077	1,077,766,743	1,124,765,779	1,160,635,812	1,218,153,275

### 3.—Denominations of Bank of Canada, Dominion and Other Notes in Circulation for Certain Years, 1926-48—concluded

Denomination	1926	1929	1945	1946	1947	1948
	\$	\$	\$	\$	\$	\$
Specials—						
\$1,000.....	671,333	407,667	1,000	1,000	1,000	1,000
\$5,000.....	16,307,500	7,209,583	10,000	10,000	10,000	10,000
\$50,000.....	134,675,000	153,970,834	—	—	—	—
Provincial.....	27,624	27,621	27,574	27,574	27,573	27,568
Fractional.....	1,330,663	1,380,710	1,093,051	1,092,522	1,091,963	1,091,691
Defunct notes..	—	—	89,660	89,406	88,923	88,642
<b>Grand Totals..</b>	<b>190,004,825</b>	<b>204,381,492</b>	<b>1,078,988,028</b>	<b>1,125,986,281</b>	<b>1,161,855,271</b>	<b>1,219,372,176</b>

### 4.—Annual Averages of Note Circulation in the Hands of the Public, 1939-48

NOTE.—Figures of circulating media in the hands of the general public for the years 1900-35 appear at p. 900 of the 1936 Year Book. Figures comparable to those shown below for the years 1926-38 are given at p. 959 of the 1946 edition.

Year	Averages of Month-End Figures			Averages of Daily Figures of Total	
	Chartered Bank Notes <sup>1</sup>	Dominion or Bank of Canada Notes <sup>2</sup>	Total	Amount <sup>3</sup>	Per Capita <sup>4</sup>
	\$	\$	\$	\$	\$
1939.....	88,820,636	129,261,655	218,082,291	216,000,000	19.17
1940.....	87,194,399	206,916,964	294,111,363	287,000,000	25.22
1941.....	78,761,049	320,037,329	398,798,378	386,000,000	33.54
1942.....	69,502,871	472,011,416	541,514,287	523,000,000	44.88
1943.....	49,082,172	660,998,231	710,080,403	688,000,000	58.25
1944.....	37,056,187 <sup>5</sup>	821,330,660	858,386,847	835,000,000	69.73
1945.....	28,636,174 <sup>5</sup>	940,911,000	969,547,174	951,000,000	78.47
1946.....	23,172,717 <sup>5</sup>	981,727,494	1,004,900,211	992,000,000	80.60
1947.....	19,675,994 <sup>5</sup>	1,009,112,506	1,028,788,500	1,013,000,000	80.51
1948.....	17,109,071 <sup>5</sup>	1,055,587,720	1,072,696,791	1,053,000,000	81.74

<sup>1</sup> Gross note circulation of chartered banks less notes held by other chartered banks.

<sup>2</sup> Total

issue less notes held by chartered banks and notes deposited in the Central Gold Reserves up to March, 1935.

<sup>3</sup> Figures, to nearest million, supplied by the Bank of Canada.

<sup>4</sup> Figures based on

estimates of population as given at p. 155.

<sup>5</sup> Gross note circulation only; notes held by other chartered banks cannot be subtracted since they are not available.

**Coinage.\***—The present monetary standard of Canada is gold of 900 millesimal fineness (23.22 grains of pure gold equal to one gold dollar). Under the Uniform Currency Act of 1871, gold coin has been authorized but only very limited issues were ever made. Gold coins have not been struck since 1919. The British sovereign and half-sovereign, and United States eagle, half-eagle and double eagle are legal tender. Subsidiary coin consists of \$1, and 50-, 25- and 10-cent silver pieces,† 5-cent nickel and 1-cent bronze pieces. Subsidiary silver coin is legal tender to the amount of 10 dollars. The 5-cent piece is legal tender up to five dollars and the 1-cent bronze coin up to 25 cents. There is no provision for the redemption of subsidiary coin. A table at p. 807 of the 1941 Year Book gives particulars of weight, fineness, etc., of current coins.

\* Revised by the Royal Canadian Mint, Ottawa.

† The Currency Act of 1910 made provision for a silver dollar and a 5-cent silver coin. The 5-cent silver coin was coined freely until 1921. It still has limited legal tender but has been replaced in the coinage by the nickel 5-cent piece. In 1942 a 5-cent piece was coined from 'tombac', a copper-zinc alloy, in order to conserve nickel for war purposes, and this coin was replaced in 1944 by a 5-cent coin composed of mild steel with a chromium finish. The current coin is pure nickel.



## 5.—Circulation of Canadian Coin as at Dec. 31, 1939-48

NOTE.—The figures are of net issues of coin. Figures for the years 1901-25 are given at p. 858 of the 1927-28 Year Book and for 1926-38 at p. 956 of the 1946 edition.

Year	Silver	Nickel	Tombac	Steel	Bronze	Total	Per Capita <sup>1</sup>
	\$	\$	\$	\$	\$	\$	\$
1939.....	32,236,145	3,355,906	—	—	3,276,771	38,868,822	3.45
1940.....	36,944,040	4,015,232	—	—	4,092,234	45,051,506	3.96
1941.....	40,339,221	4,467,463	—	—	4,648,567	49,455,251	4.30
1942.....	44,011,038	4,827,596	169,424	—	5,422,131	54,430,189	4.67
1943.....	51,009,046	4,826,033	1,407,424	—	6,300,627	63,543,130	5.38
1944.....	54,972,812	4,825,057	1,407,754	571,000	6,753,329	68,529,952	5.72
1945.....	58,327,590	4,823,237	1,407,462	1,521,170	7,499,263	73,578,722	6.07
1946.....	59,944,549	5,113,103	1,155,791	1,520,849	8,024,547	75,758,839	6.16
1947.....	61,049,986	5,503,117	868,994	1,520,647	8,382,327	77,325,071	6.15
1948.....	63,829,640	6,117,555	730,064	1,520,210	9,088,221	81,285,690	6.31

<sup>1</sup> Per capita figures are based on estimates of population as given at p. 155.

**The Royal Canadian Mint.**—The Ottawa Mint was established as a branch of the Royal Mint under the (Imperial) Coinage Act, 1870, and opened on Jan. 2, 1908. By 21-22 Geo. V, c. 48, it was constituted a branch of the Department of Finance, and by the Proclamation of Nov. 14, 1931, issued under Sect. 3 of that Act, it has, since Dec. 1, 1931, operated as the Royal Canadian Mint. At first the British North American provinces, and later the Dominion of Canada, obtained their coins from the Royal Mint at London or from The Mint, Birmingham, Limited, England. In its earlier years the operations of the Mint in Canada were confined to the production of gold, silver and bronze coins for domestic circulation, of British sovereigns and of small coins struck under contract for Newfoundland and Jamaica. Before 1914, small quantities of gold bullion were refined, but during the First World War the Mint came to the assistance of the British Government by establishing a refinery in which nearly 20,000,000 fine oz. of South African gold were treated on account of the Bank of England. The subsequent development of the gold-mining industry in Canada has resulted in gold-refining becoming one of the principal activities of the Mint. Most of the fine gold produced from the rough shipments from the mines is delivered to the Department of Finance (since Mar. 11, 1935, the Bank of Canada has acted as agent for the Government) in the form of bars of approximately 400 fine oz. each, the rest being sold in convenient form to manufacturers. The fine silver extracted from the rough gold, when not required for coinage, is sold at New York or disposed of to local manufacturing firms.

An account of the organization and operational methods of the Royal Canadian Mint is given at pp. 888-892 of the 1940 Year Book.

## 6.—Annual Receipts of Gold Bullion at the Royal Canadian Mint, and Bullion and Coinage Issued, 1939-48

NOTE.—Although not presented in exactly the same form, figures for 1901-16 are given at pp. 857-858 of the 1927-28 Year Book; for 1917-25 at p. 894 of the 1936 edition. Comparable figures to those shown below for 1926-38 are given at p. 957 of the 1946 edition.

Year	Gold Received	Gold Bullion Issued	Silver Coin Issued	Nickel Coin Issued	Steel Coin Issued	Tombac Coin Issued	Bronze Coin Issued
	fine oz.	fine oz.	\$	\$	\$	\$	\$
1939.....	4,869,239	4,834,214	2,794,032	321,000	—	—	214,600
1940.....	4,990,847	5,026,793	4,845,000	660,500	—	—	822,800
1941.....	5,092,609	5,134,348	3,534,000	454,000	—	—	575,300
1942.....	4,611,982	4,611,892	3,764,000	361,576	—	169,424	783,500
1943.....	3,616,959	3,645,740	7,044,000	—	—	1,238,000	881,300
1944.....	2,862,048	2,829,755	4,006,000	—	571,000	400	454,600
1945.....	2,503,416	2,499,163	3,416,300	—	950,300	—	748,500
1946.....	2,652,245	2,665,964	1,710,000	291,500	—	—	528,500
1947.....	2,868,469	2,859,084	1,186,000	391,000	—	—	360,300
1948.....	3,401,991	3,405,073	2,829,956	615,500	—	—	708,300

### Subsection 2.—Money Supply

During 1947 the Bank of Canada developed a presentation of statistics concerning money supply and related bank assets which differs in several important respects from the table presented in previous issues of the Year Book. It is believed that the new series provides a better approach to the problem of measuring changes in the volume of money under present-day conditions though, unfortunately, the Bank of Canada series has been carried back to 1938 only, whereas the former Dominion Bureau of Statistics series was available from 1919 (see pp. 1022-1023 of the 1947 Year Book).

In measuring the volume of money it is necessary to decide which categories of bank deposits should be classed as 'money' and which, by their nature, should be regarded more appropriately as part of the public's other liquid asset holdings such as Government bonds. Generally, it has been satisfactory to classify bank deposits as money if cheques may be drawn against them. In other countries this criterion has seemed to work fairly well because cheques may not be drawn against savings deposits. In Canada, however, cheques are, in practice, drawn freely against savings deposits and this has always posed an awkward problem when trying to assemble volume of money statistics. To omit all savings deposits of chartered banks would ignore the obvious fact that for many people a savings account is an active chequing account which is very similar to a current deposit. On the other hand it is known from available information that, of the total amount on deposit in savings accounts in Canada, much the larger part is, in practice, inactive. Chartered banks pay interest on the minimum quarterly balances in personal savings accounts, i.e., on the sum that has been left undisturbed for the quarterly period; from the amount of interest that is actually paid on this basis as compared with the nominal rate of interest, it is apparent that the aggregate minimum quarterly balances in personal savings accounts are about five-sixths of the total of such deposits at the present time.

It is felt, therefore, that a more realistic picture of monetary developments in Canada—and one more comparable with the usual presentation of similar statistics in other countries—is obtained by omitting the minimum quarterly balances in personal savings deposits and non-personal notice deposits from volume-of-money statistics. It has seemed preferable to exclude these deposits from the volume of money on the basis that they are inactive in practice rather than to include them on the grounds that they are potentially active because cheques may be issued against them.

The published returns of Canadian chartered banks include among assets "Cheques on Other Banks" which represents the amount of cheques that have been credited to the deposit account of the payee but not yet cleared against the deposit account of the drawer. To the extent of such items in 'float' there is, therefore, duplication in the figures of bank deposits. In Table 7 "Cheques on Other Banks" has been deducted from the figure of chartered bank deposits in order to eliminate this duplication.

Government deposits are given different treatment in different countries as far as volume-of-money statistics are concerned. In most cases the commonly used figure of bank deposits excludes Government deposits and, on the whole, it appears preferable to exclude Federal Government deposits from the Canadian money-supply figures.

## 7.—Summary Statistics of Money Supply, 1939-48

(Millions of dollars)

Year	Currency Outside Banks <sup>1</sup>			Bank Deposits			Money Supply
	Notes	Coin	Total Currency	Chartered Bank Net <sup>2</sup>	Bank of Canada 'Other' Deposits <sup>3</sup>	Total Bank Deposits	
1939.....	247	34	281	1,071	18	1,089	1,370
1940.....	341	38	379	1,174	10	1,184	1,563
1941.....	450	42	492	1,403	6	1,409	1,901
1942.....	633	49	682	1,648	19	1,667	2,349
1943.....	794	55	849	1,859	18	1,877	2,726
1944.....	930	60	990	2,135	28	2,163	3,153
1945.....	992	63	1,055	2,429	30	2,459	3,514
1946.....	1,031	65	1,096	2,806	94	2,900	3,996
1947.....	1,046	66	1,112	2,764	68	2,832	3,944
1948.....	1,115	70	1,185	3,069	81	3,150	4,335

<sup>1</sup> Note circulation excluding notes held by chartered banks together with total coin issued by the Mint, less coin held by the banks. <sup>2</sup> Demand and notice deposits, deposits of Provincial Governments, United Kingdom and foreign banks; less 'float' deposits, that is, cheques on banks as shown in month-end returns. <sup>3</sup> Excludes Federal Government, chartered bank and foreign deposits.

## Section 4.—Monetary Reserves

## Subsection 1.—Bank of Canada Reserves

The composition of Canadian gold reserves held by the Government is presented in the 1936 edition of the Year Book, at p. 895, for the years 1905 to 1934. Since March, 1935, the gold reserves have been held by the Bank of Canada. By authority of the Exchange Fund Act (c. 60, 1935), effective in July, 1935, they are valued at the current market price of gold. The new data are to be found under the item "Reserves" in the "Assets" section of Table 1, p. 1058. As explained in the footnote to that table, under the Exchange Fund Order of Apr. 30, 1940, the gold reserves of the Bank of Canada were transferred to the Foreign Exchange Control Board and the requirement that the Bank should maintain a reserve of gold equal to not less than 25 p.c. of its total note and deposit liabilities in Canada was temporarily suspended.

## Subsection 2.—Chartered Bank Canadian Cash Reserves

**Before the Establishment of the Bank of Canada.**—Up to March, 1935, legal tender cash reserves in Canada were made up partly of Dominion notes, partly of gold coin and bullion, and subsidiary coin, including these forms of cash held by the banks themselves, and as deposits in the Central Gold Reserves. In so far as these reserves were in actual gold or were in Dominion notes backed by gold, they were subject to the expanding or contracting influences of monetary gold imports or exports arising from Canada's balance of international payments, so long as Canada was on the gold standard.

**Since the Establishment of the Bank of Canada.**—When the Bank of Canada was established, the chartered banks turned over their reserves of gold in Canada and Dominion notes to the new bank in exchange for deposits with, and notes of, the Bank of Canada. It was provided that, henceforth, the chartered banks were to carry reserves in these forms amounting to at least 5 p.c. of their



deposit liabilities in Canada. Since that time, therefore, the gold reserves against currency and bank credit have been in the custody of the central bank, except as affected by the Exchange Fund Order, 1940, as explained under Bank of Canada reserves in Subsection 1, p. 1064.

### 8.—Annual Averages of Cash Reserves of the Chartered Banks, 1939-48

NOTE.—Figures, to nearest million, supplied by the Bank of Canada. Cash reserves include notes and deposits with the Bank of Canada. Figures for the years 1926-38 are given at p. 960 of the 1946 Year Book.

Year	Annual Average of Daily Figures	Annual Average of Month-End Figures	Year	Annual Average of Daily Figures	Annual Average of Month-End Figures
	\$	\$		\$	\$
1939.....	269,000,000	268,000,000	1944.....	538,000,000	527,000,000
1940.....	289,000,000	287,000,000	1945.....	603,000,000	593,000,000
1941.....	313,000,000	308,000,000	1946.....	672,000,000	673,000,000
1942.....	342,000,000	340,000,000	1947.....	670,000,000	665,000,000
1943.....	423,000,000	413,000,000	1948.....	711,000,000	705,000,000

## Section 5.—Commercial Banking

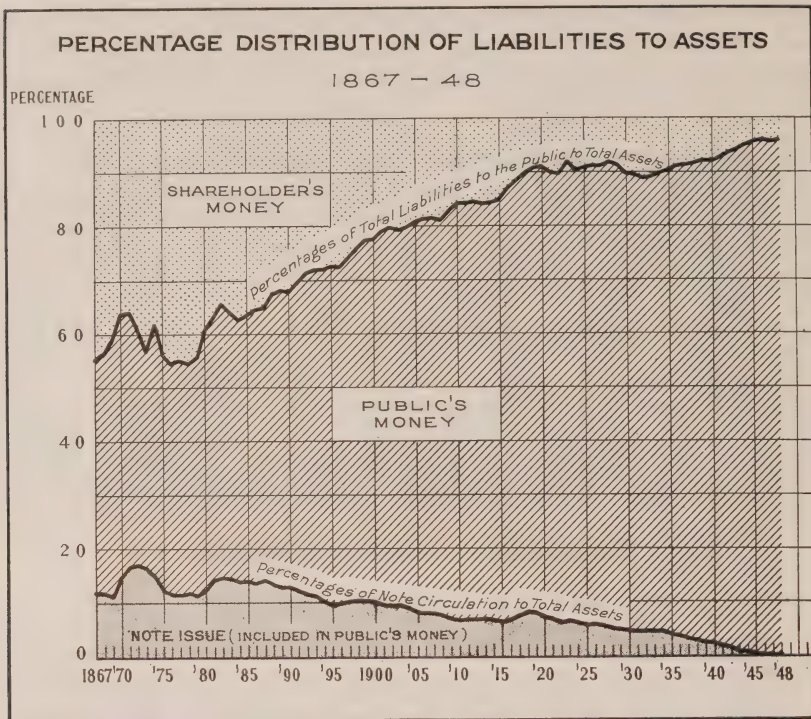
### Subsection 1.—Historical

Since one of the chief functions of the early banks in Canada was to issue notes to provide a convenient currency or circulating medium, it has been expedient to cover both currency and banking in the one historical sketch, which is given at pp. 901-905 of the 1938 Year Book. A list of the banks at Confederation appears at p. 897 of the 1940 Year Book and bank absorptions since 1867 are given at pp. 812-813 of the 1941 edition. A table at pp. 894-895 of the 1937 Year Book shows the insolvencies from Confederation; the last insolvency occurred in 1923.

A summary of the more important changes resulting from the revision of the Bank Act in 1944 is given at pp. 961-962 of the 1946 Year Book.

### Subsection 2.—Combined Statistics of Chartered Banks

In order to afford a clear view of the nature of banking transactions in Canada, bank liabilities have been classified in Table 9 in two main groups: liabilities to shareholders and liabilities to the public. Only the latter group is ordinarily considered when determining the financial position of any such institution. Assets are divided into four groups, 'other assets' being included in the total. Of interest to students of banking practice, the relative rates of increase of capital and reserve funds may be noted, also the great increase in the proportion of liabilities to the public to total liabilities, and the gradually increasing percentage of liabilities to the public to total assets. The declining proportion of notes in circulation to total liabilities to the public is also characteristic of the evolution of banking in recent times. Holdings of Federal and Provincial Government and municipal securities were relatively insignificant prior to the War of 1914-18.



### 9.—Historical Statistics of Chartered Banking in Canada, 1933-48

NOTE.—These statistics are yearly averages computed from the twelve monthly returns in each year. Figures for the years 1867-1880 will be found at pp. 918-919 of the 1938 Year Book; for the years 1881-1915 at pp. 815-816 of the 1941 edition; for the years 1916-26 at pp. 963-964 of the 1946 edition; and for the years 1927-32 at pp. 1025-1026 of the 1947 edition.

Year	ASSETS						P.C. of Public Liabilities to Total Assets
	Specie and Dominion or Bank of Canada Notes	Federal and Provincial Government Securities	Municipal Securities in Canada and Public Securities Elsewhere	Total Securities	Total Loans	Total Assets <sup>1</sup>	
	\$	\$	\$	\$	\$	\$	P.C.
1933...	209,550,285 <sup>2</sup>	626,881,709	163,834,318	841,151,958	1,409,067,110	2,831,393,641	88-93
1934...	214,419,280 <sup>2</sup>	683,498,403	139,850,099	866,725,958	1,373,683,071	2,837,919,961	89-81
1935...	227,692,952 <sup>3,4</sup>	860,942,292	137,764,626	1,044,351,653	1,276,430,825	2,956,577,704	90-24
1936...	240,596,447 <sup>5</sup>	1,074,795,141	161,879,725	1,330,808,991	1,140,557,800	3,144,506,755	90-81
1937...	249,372,724 <sup>6</sup>	1,118,893,938	181,972,016	1,426,371,394	1,200,574,223	3,317,087,132	91-22
1938...	262,354,597 <sup>8</sup>	1,143,040,485	170,487,703	1,439,666,822	1,200,692,605	3,348,708,580	91-28
1939...	279,161,539 <sup>9</sup>	1,234,066,994	179,924,335	1,540,330,246	1,243,616,409	3,591,564,586	91-84
1940...	296,877,855 <sup>9</sup>	1,311,641,053	157,361,535	1,579,467,048	1,324,021,841	3,707,316,459	92-01
1941...	318,039,223 <sup>9</sup>	1,483,299,697	149,467,128	1,726,543,416	1,403,181,296	4,008,381,256	92-60
1942...	349,729,409 <sup>9</sup>	1,806,891,877	182,052,417	2,073,471,530	1,370,418,799	4,399,820,746	93-24
1943...	422,561,348 <sup>9</sup>	2,404,756,734	232,405,156	2,713,939,940	1,334,080,022	5,148,458,722	94-19
1944...	538,206,187 <sup>9</sup>	2,991,047,582	283,417,399	3,353,259,736	1,343,938,364	5,990,410,887	94-98
1945...	604,842,928 <sup>9</sup>	3,438,830,751	313,061,291	3,857,534,890	1,505,039,333	6,743,217,134	95-48
1946...	686,368,427 <sup>9</sup>	3,734,872,237	381,996,554	4,287,002,710	1,642,519,066	7,429,608,029	95-89
1947...	679,051,569 <sup>9</sup>	3,395,306,552	436,075,580	4,108,441,158	2,125,582,441	7,810,913,975	95-72
1948...	719,499,043 <sup>1</sup>	3,314,539,556	393,841,399	4,120,137,032	2,388,597,680	8,140,145,708	95-81

For footnotes, see end of table, p. 1067.

## 9.—Historical Statistics of Chartered Banking in Canada, 1933-48—concluded

Year	LIABILITIES						
	Liabilities to Shareholders		Liabilities to the Public				
	Capital	Rest or Reserve Fund	Notes in Circulation	Demand Deposits in Canada	Notice Deposits in Canada	Total on Deposit <sup>5</sup>	Total Public Liabilities <sup>6</sup>
	\$	\$	\$	\$	\$	\$	\$
1933...	144,500,000	157,250,000	130,362,488	488,527,864	1,378,497,944	2,236,841,539	2,517,934,260
1934...	144,916,667	132,604,166	135,537,793	513,973,506	1,372,817,869	2,274,607,936	2,548,720,434
1935...	145,500,000	132,750,000	125,644,102	568,615,373	1,445,281,247	2,426,760,923	2,667,950,352
1936...	145,500,000	133,000,000	119,507,306	618,340,561	1,518,216,945	2,614,895,597	2,855,622,232
1937...	145,500,000	133,750,000	110,259,134	691,319,545	1,573,654,555	2,775,530,413	3,025,721,653
1938...	145,500,000	133,750,000	99,870,493	690,485,877	1,630,481,857	2,823,686,934	3,056,684,905
1939...	145,500,000	133,750,000	94,064,907	741,733,241	1,699,224,304	3,060,859,111	3,298,351,099
1940...	145,500,000	133,750,000	91,134,378	875,059,476	1,646,891,010	3,179,523,062	3,411,104,825
1941...	145,500,000	133,916,667	81,620,753	1,088,198,370	1,616,129,007	3,464,781,844	3,711,870,680
1942...	145,500,000	135,083,333	71,743,242	1,341,499,012	1,644,842,331	3,834,335,141	4,102,355,598
1943...	145,500,000	136,750,000	50,230,204	1,619,407,736	1,864,177,700	4,592,336,705	4,849,222,532
1944...	145,500,000	136,750,000	37,056,187	1,863,793,981	2,272,573,361	5,422,302,978	5,689,443,095
1945...	145,500,000	136,750,000	28,636,174	1,986,075,142	2,750,358,254	6,159,997,976	6,438,617,676
1946...	145,500,000	144,666,667	23,172,717	2,155,312,749	3,327,057,442	6,771,555,153	7,123,979,417
1947...	145,500,000	178,000,000	19,675,994	2,138,771,178	3,681,231,057	7,075,355,884	7,476,627,449
1948...	145,500,000	182,416,667	17,109,071	2,258,658,693	3,972,159,586	7,402,776,952	7,798,910,335

<sup>1</sup> Includes other assets. <sup>2</sup> Includes deposits in Central Gold Reserves. <sup>3</sup> Notes of, and deposits in, the Bank of Canada and specie. <sup>4</sup> Ten-month average. <sup>5</sup> Includes the deposits of Federal and Provincial Governments and also deposits elsewhere than in Canada. <sup>6</sup> Includes other liabilities to the public.

## 10.—Analysis of Assets of Chartered Banks, 1944-48

NOTE.—The statistics in this table are averages computed from the twelve monthly returns in each year.

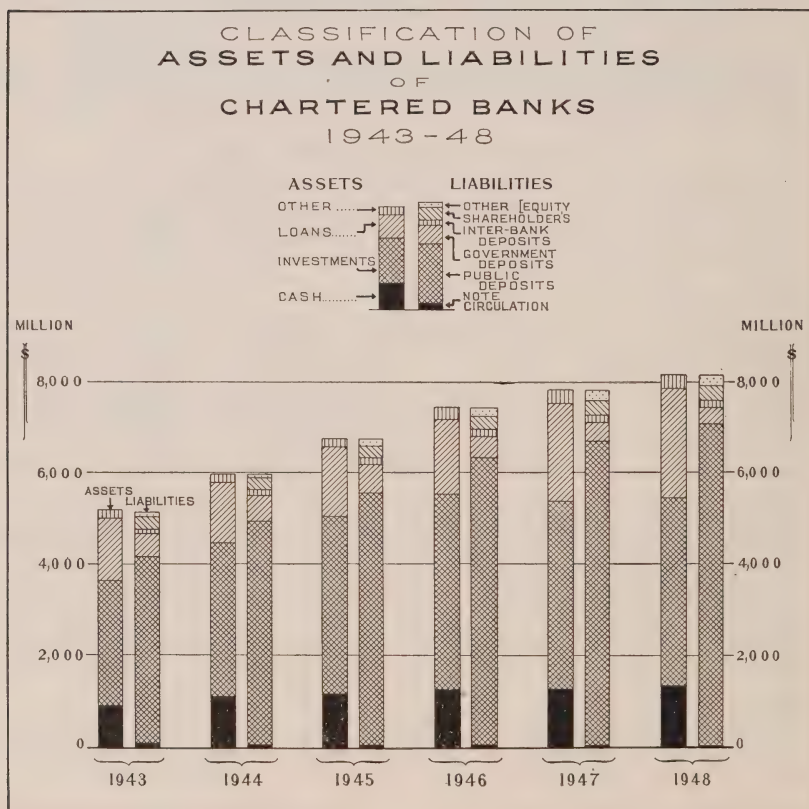
Assets	1944	1945	1946	1947	1948
	\$	\$	\$	\$	\$
Cash reserves against Canadian deposits (as per Table 8).....	526,874,824	592,867,272	672,762,790	664,718,056	705,355,726
Subsidiary coin.....	8,694,595	9,343,542	10,817,528	11,253,241	10,971,474
Notes of other Canadian banks.....	222,305,178 <sup>1</sup>	232,805,515 <sup>1</sup>	251,558,442 <sup>1</sup>	288,583,047 <sup>1</sup>	312,070,881 <sup>1</sup>
Deposits at other Canadian banks.....	2,534,265	2,616,417	2,542,969	2,506,564	2,433,288
Gold and coin abroad.....	2,636,768	2,632,114	2,788,109	3,080,272	3,171,843
Foreign currencies.....	106,180,869	96,418,427	94,545,941	115,869,508	103,470,746
Deposits at United Kingdom banks.....	42,353,724	41,065,991	28,497,537	30,497,542	26,663,594
Deposits at foreign banks.....	181,249,668	192,180,650	175,873,662	158,496,104	163,897,705
Securities—					
Federal and Provincial Government securities.....	2,991,047,582	3,438,830,751	3,734,872,237	3,395,306,552	3,314,539,556
Other Canadian and foreign public securities.....	283,417,399	313,061,291	381,996,554	436,075,580	393,841,399
Other bonds, debentures and stocks.....	78,794,755	105,642,848	170,133,919	277,059,026	411,756,077
Call and Short Loans—					
In Canada.....	62,428,611	129,871,551	131,944,670	103,930,497	81,267,856
Elsewhere.....	99,745,985	108,483,349	87,186,136	75,806,677	73,585,632
Current Loans—					
Canada—					
Loans to Provincial Governments.....	6,223,023	11,987,899	15,607,671	15,191,463	18,419,394

<sup>1</sup> Includes cheques of other banks.



## 10.—Analysis of Assets of Chartered Banks, 1944-48—concluded

Assets	1944	1945	1946	1947	1948
	\$	\$	\$	\$	\$
Current Loans—concluded					
Canada—					
Loans to cities, towns, municipalities and school districts.....	37,409,437	22,536,443	28,580,333	38,518,846	56,978,069
Other current loans and discounts.....	1,022,117,870	1,100,493,367	1,223,437,931	1,692,840,036	1,922,918,821
Elsewhere than in Canada...	114,202,426	130,510,874	154,811,967	198,241,867	233,934,908
Non-current loans.....	1,811,012	1,155,850	950,358	1,053,055	1,493,000
Other Assets—					
Real estate, other than bank premises.....	3,667,696	2,106,279	1,604,785	739,823	564,321
Mortgages on real estate sold by the banks.....	2,453,173	2,146,201	1,672,166	1,434,343	1,035,171
Bank premises.....	63,907,545	62,792,527	64,533,559	68,199,564	74,701,971
Bank circulation redemption fund.....	2,776,557	2,030,754	1,532,267	1,239,186	1,035,646
Liabilities of customers under letters of credit <i>as per contra</i> .....	113,887,283	125,296,836	175,810,337	213,372,833	206,965,324
All other assets.....	13,690,642	16,340,386	15,546,161	16,900,293	19,073,306
<b>Totals, Assets.....</b>	<b>5,990,410,887</b>	<b>6,743,217,134</b>	<b>7,429,608,029</b>	<b>7,810,913,975</b>	<b>8,140,145,708</b>



**11.—Analysis of Liabilities of Chartered Banks, 1944-48**

NOTE.—The statistics in this table are averages computed from the twelve monthly returns in each year.

Liabilities	1944	1945	1946	1947	1948
	\$	\$	\$	\$	\$
<b>LIABILITIES TO THE PUBLIC</b>					
Notes in circulation.....	37,056,187	28,636,174	23,172,717	19,675,994	17,109,071
Deposit Liabilities—					
Government Deposits—					
Federal.....	464,521,970	541,976,377	363,047,533	271,549,539	209,482,225
Provincial.....	105,146,178	110,671,712	120,274,679	132,491,736	145,526,842
Public Deposits—					
Demand.....	1,863,793,981	1,986,075,142	2,155,312,749	2,138,771,178	2,258,658,693
Notice.....	2,272,573,361	2,750,358,254	3,327,057,442	3,681,231,057	3,972,159,586
Other <sup>1</sup> .....	59,495,010 <sup>2</sup>	54,691,038	76,243,048	87,061,746	80,553,013
Foreign.....	696,435,818	716,225,453	729,619,702	764,250,628	736,396,593
Inter-Bank Deposits—					
Canadian.....	17,700,142	17,895,061	19,338,432	21,946,138	26,047,623
United Kingdom.....	32,072,586	36,859,630	31,809,528	34,649,703	39,693,279
Other.....	58,721,002	63,326,006	96,151,327	105,205,023	98,087,714
Totals, Deposit Liabilities <sup>3</sup> .....	5,530,796,708	6,278,078,673	6,918,854,440	7,237,156,748	7,566,605,568
Canadian currency (estimated)	4,686,000,000	5,378,000,000	5,993,000,000	6,278,000,000	6,644,000,000
Foreign currency (estimated).....	844,000,000	900,000,000	925,000,000	959,000,000	922,000,000
Totals, Note and Deposit Liabilities.....	5,567,852,895	6,306,714,847	6,942,027,157	7,256,832,742	7,583,714,639
Other Liabilities to the Public—					
Letters of credit outstanding.....	113,887,283	125,296,836	175,810,337	213,372,833	206,965,324
Liabilities not included under foregoing headings.....	7,702,917	6,605,993	6,141,923	6,421,874	8,230,372
TOTALS, LIABILITIES TO THE PUBLIC.....	5,689,443,095	6,438,617,676	7,123,979,417	7,476,627,449	7,798,910,335
<b>LIABILITIES TO SHAREHOLDERS</b>					
Capital.....	145,500,000	145,500,000	145,500,000	145,500,000	145,500,000
Reserve or reserve fund.....	136,750,000	136,750,000	144,666,667	178,000,000	182,416,667
<b>Grand Totals, Liabilities..</b>	<b>5,971,693,095<sup>2</sup></b>	<b>6,720,867,676</b>	<b>7,414,146,084</b>	<b>7,800,127,449</b>	<b>8,126,827,002</b>

<sup>1</sup> Deposits in currencies other than Canadian, expressed in Canadian dollars at current rate of exchange.<sup>2</sup> Four-month average; not shown prior to September, 1944. The grand total is, however, a twelve-month average.<sup>3</sup> Totals do not correspond with those in Table 9 because of the inclusion here of inter-bank deposits.**12.—Significant Ratio Comparisons of Assets and Liabilities of Chartered Banks, 1939-48**

NOTE.—Yearly averages of month-end figures, except where otherwise specified. Figures for the years 1926-38 will be found at p. 966 of the 1946 Year Book.

Year	Canadian Cash to Canadian Deposits		Securities to Note and Deposit Liabilities	Loans to Note and Deposit Liabilities
	Daily <sup>1</sup>	Month-End		
	p.c.	p.c.	p.c.	p.c.
1939.....	10.4	10.2	47.5	38.4
1940.....	10.6	10.4	47.3	39.6
1941.....	10.5	10.2	47.8	38.9
1942.....	10.5	10.2	52.1	34.5
1943.....	10.9	10.4	57.4	28.2
1944.....	11.8	11.2	60.2	24.1
1945.....	11.4	11.0	61.2	23.9
1946.....	11.4	11.2	61.8	23.7
1947.....	10.8	10.6	54.7	32.0
1948.....	10.9	10.6	56.8	32.9

<sup>1</sup> Figures supplied by the Bank of Canada.

**13.—Deposits in Chartered Banks, according to Size and Currency, at Sept. 30, 1948**

Class and Amount of Deposit	Deposits in Canadian Currency		Deposits in Currencies Other Than Canadian	
	No.	\$	No.	\$
<b>Deposits Payable on Demand—</b>				
\$1,000 or less.....	726,627	180,400,417	2,104	709,257
\$1,000 to \$5,000.....	163,378	355,814,179	710	1,619,994
\$5,000 to \$25,000.....	43,957	434,770,844	389	4,608,570
\$25,000 to \$100,000.....	8,496	393,587,523	201	10,439,048
Over \$100,000.....	2,648	1,032,632,169	117	53,485,381
Adjustment items <sup>1</sup> .....	..	-37,089,499	..	+9,755,457
<b>Totals.....</b>	<b>945,106</b>	<b>2,360,115,633</b>	<b>3,521</b>	<b>80,617,707</b>
<b>Deposits Payable After Notice—</b>				
\$1,000 or less.....	5,718,549	953,101,895	105	10,857
\$1,000 to \$5,000.....	777,650	1,605,141,694	22	40,070
\$5,000 to \$25,000.....	103,426	867,993,253	4	25,344
\$25,000 to \$100,000.....	5,297	228,122,714	—	—
Over \$100,000.....	1,030	387,117,418	2	2,057,732
Adjustment items <sup>1</sup> .....	..	+7,058,345	..	+44,586
<b>Totals.....</b>	<b>6,605,952</b>	<b>4,048,535,319</b>	<b>133</b>	<b>2,178,589</b>

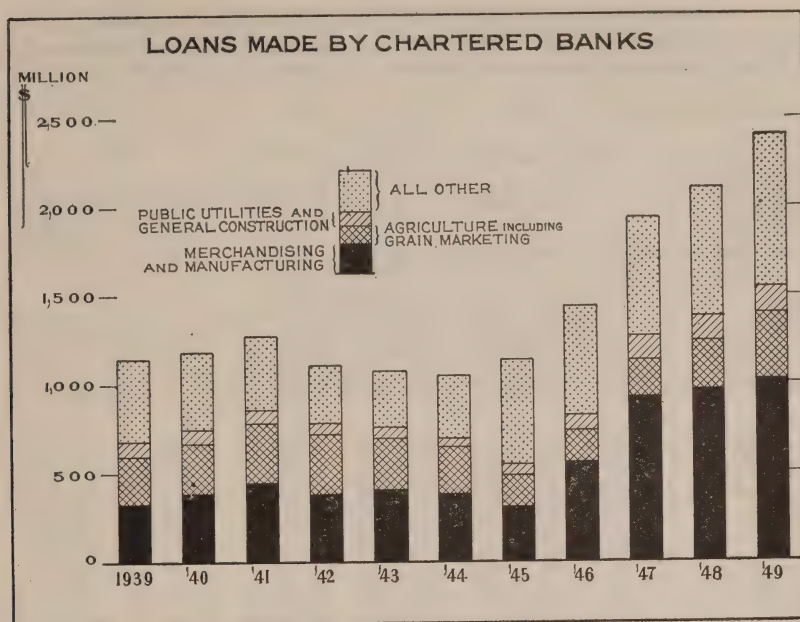
<sup>1</sup> Represents certified cheques, interest accrued on interest-bearing accounts, items in transit, etc.

**14.—Loans of Chartered Banks, according to Class, Outstanding at Oct. 31, 1946 and Sept. 30, 1947 and 1948<sup>1</sup>**

Class of Loan	1946	1947	1948
	\$	\$	\$
<b>Government—</b>			
Provincial Governments.....	12,116,968	20,641,900	20,538,008
Municipal Governments and school districts.....	26,544,759	43,868,336	67,603,512
<b>Totals, Government.....</b>	<b>38,661,727</b>	<b>64,510,236</b>	<b>88,141,520</b>
<b>Agricultural—</b>			
Loans to farmers, cattlemen and fruit growers.....	109,773,783	147,313,944	161,927,826
Loans to grain dealers, grain exporters and seed merchants..	67,720,952	67,871,193	103,318,471
<b>Totals, Agricultural.....</b>	<b>177,494,735</b>	<b>215,185,137</b>	<b>265,246,297</b>
<b>Financial—</b>			
Call loans and other accommodation to brokers and bond dealers.....	97,788,415	83,911,159	75,354,539
Loans to trust, loan, mortgage, investment and insurance companies, and other financial institutions.....	63,742,856	38,027,462	41,372,762
Loans to individuals against approved stocks and bonds not otherwise classified.....	220,826,908	225,816,219	225,055,332
<b>Totals, Financial.....</b>	<b>382,358,179</b>	<b>347,754,840</b>	<b>341,782,633</b>
<b>Merchandising, wholesale and retail.....</b>	<b>240,059,325</b>	<b>417,687,276</b>	<b>432,462,302</b>
Manufacturers of and dealers in lumber, pulpwood, and products thereof.....	79,420,060	116,359,285	112,690,662
Other manufacturing of all descriptions.....	238,838,107	387,153,392	423,360,566
Mining.....	13,702,190	16,953,232	18,917,290
Fishing, including packers and curers of fish.....	16,437,941	21,327,631	14,847,896
Public utility, including transportation companies.....	15,878,106	42,474,475	36,269,546
Building—contractors and others for building purposes.....	71,766,822	93,907,698	103,619,156
Charitable, religious and educational institutions—churches, parishes, hospitals, etc.....	7,784,535	13,521,814	23,845,264
Other.....	156,476,195	201,381,411	239,470,387
<b>Grand Totals.....</b>	<b>1,438,877,922</b>	<b>1,938,216,427</b>	<b>2,100,653,519</b>

<sup>1</sup> Since 1946 the end of the accounting year has been Sept. 30.





**Cheque Payments.**—Business operations consist of innumerable individual transactions, the great majority of which employ money either in the form of currency or cheques drawn against bank deposits. It is well known that business transactions are predominantly concluded by the use of cheques rather than by payment in currency. The employment of cheques, being the one element normally common to a large proportion of economic transactions, provides an excellent index of the business trend at any given time. The changes in direction that take place in the economy are reflected by the amount of cheques cashed or otherwise paid.

The value of cheques cashed rose to a higher position in 1948 than in any other year. The country-wide total was more than 8 p.c. greater than that of 1947. Increases were achieved consistently year by year from 1938, reflecting the marked expansion in business activity occasioned by the War and its aftermath. The replenishment of shortages in consumer goods, the high level of capital formation on a physical footing and especially the marked advance in prices were the main generating forces for the continuance of the advance in financial transactions during the year.

Gains were practically general in the 33 clearing-house centres. Toronto and Winnipeg, two of the largest cities, bettered their share of the Canadian aggregate. While increases were shown in each of the five economic areas, the Maritimes, Ontario and the Prairie Provinces were prominent in this respect.

**15.—Cheques Cashied at Individual Clearing-House Centres, 1944-48**

NOTE.—Figures for earlier years will be found in the corresponding tables in previous Year Books.

Clearing-House Centre	1944	1945	1946	1947	1948
	\$	\$	\$	\$	\$
<b>Maritime Provinces—</b>					
Halifax.....	707,345,558	850,393,003	870,735,782	932,830,407	1,049,266,016
Moncton.....	231,547,502	257,723,155	276,711,273	310,451,042	353,563,290
Saint John.....	388,767,904	445,474,600	456,571,211	507,373,274	567,250,089
Totals, Maritime Provinces.....	1,327,660,964	1,553,590,758	1,604,018,266	1,750,654,723	1,970,079,395
<b>Quebec—</b>					
Montreal.....	15,441,044,068	17,486,992,168	18,828,185,425	20,611,366,139	20,978,798,588
Quebec.....	1,633,078,085	1,648,626,349	1,722,532,681	2,077,761,098	2,433,327,617
Sherbrooke.....	148,165,207	173,714,466	198,641,707	230,782,121	277,706,843
Totals, Quebec.....	17,222,287,360	19,309,332,983	20,749,359,813	22,919,909,358	23,689,833,048
<b>Ontario—</b>					
Brantford.....	239,304,256	253,506,245	269,742,168	321,206,951	381,128,797
Chatham.....	144,553,172	171,783,508	185,640,451	244,616,255	276,949,470
Fort William.....	168,928,365	171,655,637	185,151,376	209,576,526	225,285,630
Hamilton.....	1,375,804,380	1,360,759,670	1,460,388,257	1,735,130,215	1,952,144,798
Kingston.....	166,553,903	179,185,124	205,647,350	213,911,998	232,559,287
Kitchener.....	288,161,663	324,490,838	363,577,527	435,651,884	463,306,010
London.....	667,833,039	819,218,952	871,610,947	1,013,241,572	1,069,977,738
Ottawa.....	7,702,608,563	7,810,891,068	5,170,462,037	3,919,695,689	3,676,301,837
Peterborough.....	149,188,780	166,315,914	197,282,233	231,700,861	260,089,790
St. Catharines.....	246,488,553	241,951,191	233,814,244	307,934,247	348,356,620
Sarnia.....	185,769,583	231,195,323	244,695,064	267,281,455	299,390,423
Sudbury.....	112,651,722	127,466,405	153,372,708	191,809,314	231,991,381
Toronto.....	14,445,952,616	18,760,599,503	19,907,026,302	20,210,585,424	22,655,184,798
Windsor.....	1,009,140,966	924,342,237	933,544,600	1,131,583,994	1,308,938,613
Totals, Ontario.....	26,902,944,561	31,543,361,615	30,401,955,884	30,433,876,385	33,381,605,192
<b>Prairie Provinces—</b>					
Brandon.....	90,136,926	90,943,819	104,139,525	114,364,031	133,695,331
Calgary.....	1,498,387,721	1,523,535,631	1,602,047,603	1,779,369,851	2,072,825,960
Edmonton.....	1,060,248,757	1,165,857,185	1,213,183,915	1,313,138,121	1,568,264,769
Lethbridge.....	116,810,111	118,733,308	146,971,392	168,987,463	219,442,238
Medicine Hat.....	66,030,272	65,280,363	74,791,412	98,231,596	100,545,349
Moose Jaw.....	169,470,394	173,806,127	185,849,046	207,671,843	231,955,560
Prince Albert.....	81,775,325	84,699,682	104,869,722	108,770,342	123,868,921
Regina.....	1,155,130,243	1,111,542,712	977,251,230	1,286,895,569	1,333,318,232
Saskatoon.....	264,083,618	291,705,073	349,200,751	394,914,872	442,603,392
Winnipeg.....	6,986,366,445	6,936,060,331	6,366,405,086	7,381,392,595	8,375,790,546
Totals, Prairie Provinces.....	11,488,439,812	11,562,164,231	11,124,679,682	12,853,736,283	14,602,310,298
<b>British Columbia—</b>					
New Westminster.....	175,523,212	199,961,938	226,075,659	289,113,363	326,958,401
Vancouver.....	3,059,154,952	3,615,095,540	4,354,229,708	5,321,162,167	5,765,370,362
Victoria.....	500,943,546	601,306,096	787,288,421	929,640,699	951,290,865
Totals, British Columbia.....	3,735,621,710	4,416,363,574	5,367,593,788	6,539,916,229	7,043,619,628
<b>Grand Totals.....</b>	<b>60,676,954,407</b>	<b>68,384,813,161</b>	<b>69,247,607,433</b>	<b>74,498,092,978</b>	<b>80,687,447,561</b>

**Subsection 3.—Statistics of Individual Chartered Banks**

**Assets and Liabilities.**—Cash reserves against deposits as shown in Table 16 for the years 1944-48 comprise the total of Bank of Canada notes in the possession of the chartered banks together with their deposits at the Bank of Canada. Before the establishment of the Bank of Canada in 1935, the figures comprised the totals of the banks' holdings of gold and coin in Canada, Dominion notes, and that part of their deposits in the Central Gold Reserve not required against their note issues.

## 16.—Principal and Total Assets of Individual Chartered Banks, 1944-48

NOTE.—The statistics in this table are averages computed from the twelve monthly returns in each year. Figures for earlier years will be found in the corresponding table in previous Year Books.

Bank	Year	Cash Reserve Against Canadian Deposits <sup>1</sup>	Total Securities	Total Loans	Total Assets
		\$	\$	\$	\$
Bank of Montreal.....	1944	152,163,000	888,358,483	288,739,608	1,463,971,405
	1945	155,694,000	1,028,777,079	320,982,087	1,647,636,170
	1946	190,383,638	1,119,635,649	347,356,037	1,796,990,122
	1947	178,735,541	1,104,384,289	431,682,205	1,874,722,682
	1948	190,936,684	1,132,548,224	466,206,499	1,959,374,448
Bank of Nova Scotia.....	1944	35,408,000	239,209,902	135,997,990	522,964,177
	1945	39,710,000	281,311,595	159,462,363	594,926,370
	1946	47,688,633	340,502,098	171,571,301	667,529,926
	1947	49,967,010	307,005,937	235,368,583	698,656,459
	1948	52,883,260	299,319,646	270,639,558	727,956,674
Bank of Toronto.....	1944	31,218,000	160,907,662	58,691,985	271,215,993
	1945	34,394,000	190,060,578	66,689,428	314,191,547
	1946	35,646,203	204,806,135	77,910,256	345,568,053
	1947	38,125,329	196,664,385	105,737,917	376,840,923
	1948	40,898,287	210,585,319	122,612,071	408,449,544
Provincial Bank of Canada.....	1944	10,458,000	64,291,106	19,559,042	103,246,904
	1945	13,047,000	75,306,666	23,220,529	120,546,322
	1946	14,898,961	85,751,626	27,163,002	137,328,250
	1947	14,879,988	83,469,477	35,077,054	144,089,266
	1948	14,152,354	84,683,391	45,393,572	157,230,233
Canadian Bank of Commerce.....	1944	99,250,000	626,705,008	275,643,982	1,125,254,661
	1945	116,870,000	725,688,510	290,846,428	1,252,362,957
	1946	130,366,047	822,897,644	294,863,669	1,377,251,874
	1947	124,391,358	782,280,146	369,379,307	1,415,292,575
	1948	130,729,073	781,747,684	422,682,280	1,484,744,829
Royal Bank of Canada.....	1944	118,133,000	882,252,832	359,279,825	1,634,474,340
	1945	134,605,000	993,034,484	399,083,314	1,811,296,321
	1946	146,660,814	1,104,740,478	431,800,548	1,995,398,750
	1947	147,566,895	1,084,949,594	540,365,479	2,118,197,065
	1948	156,088,452	1,054,214,867	597,229,707	2,139,275,066
Dominion Bank.....	1944	25,076,000	136,092,959	69,123,864	258,058,097
	1945	30,014,000	160,663,455	75,842,878	296,836,249
	1946	32,736,010	176,992,982	89,038,551	332,271,132
	1947	35,421,016	159,404,148	121,986,102	355,193,069
	1948	39,924,645	162,721,210	136,833,775	381,433,720
Banque Canadienne Nationale.....	1944	24,652,000	169,260,772	54,475,871	270,164,970
	1945	32,092,000	190,293,060	69,077,946	313,284,691
	1946	34,686,416	204,576,423	89,386,811	352,811,873
	1947	37,873,976	189,986,112	126,880,830	382,157,076
	1948	38,612,101	185,748,804	145,104,464	397,555,711
Imperial Bank of Canada.....	1944	28,096,000	173,510,623	77,531,437	309,868,975
	1945	33,346,000	195,306,534	96,288,029	358,043,504
	1946	37,003,289	207,917,098	110,364,934	391,019,769
	1947	34,665,413	179,823,529	155,432,046	410,446,539
	1948	38,164,439	189,916,690	177,358,980	451,886,227
Barclays Bank (Canada).....	1944	2,421,000	12,670,389	4,894,760	31,191,365
	1945	3,095,000	17,092,929	3,546,331	34,090,503
	1946	2,692,756	19,182,577	3,063,957	33,438,280
	1947	3,071,374	20,473,541	3,672,918	35,318,321
	1948	2,966,372	18,651,197	4,536,774	32,239,256
<b>Totals.....</b>	<b>1944</b>	<b>526,875,000</b>	<b>3,353,259,736</b>	<b>1,343,938,364</b>	<b>5,990,410,887</b>
	<b>1945</b>	<b>592,867,000</b>	<b>3,857,534,890</b>	<b>1,505,039,333</b>	<b>6,743,217,134</b>
	<b>1946</b>	<b>672,762,767</b>	<b>4,287,002,710</b>	<b>1,642,519,066</b>	<b>7,429,608,029</b>
	<b>1947</b>	<b>664,717,900</b>	<b>4,108,441,158</b>	<b>2,125,582,441</b>	<b>7,810,913,975</b>
	<b>1948</b>	<b>705,355,667</b>	<b>4,120,137,032</b>	<b>2,388,597,680</b>	<b>8,140,145,708</b>

<sup>1</sup> Excluding minor amounts of gold carried in such reserves. See also pp. 1064-1065.



## 17.—Principal and Total Liabilities of Individual Chartered Banks, 1944-48

NOTE.—The statistics in this table are averages computed from the twelve monthly returns in each year. Figures for earlier years will be found in the corresponding table in previous Year Books.

Bank	Year	Notes in Circulation	Deposit Liabilities			Liabilities to Shareholders	Total Liabilities
			Government	Public	Inter-Bank		
		\$	\$	\$	\$	\$	\$
Bank of Montreal..	1944	8,770,833	167,328,192	1,155,761,450	35,777,518	75,000,000	1,461,056,947
	1945	7,067,683	193,298,719	1,312,621,038	38,841,363	75,000,000	1,644,374,047
	1946	5,819,690	159,989,224	1,490,593,250	41,424,119	75,750,000	1,794,254,674
	1947	5,014,146	132,565,145	1,587,909,440	42,717,117	78,500,000	1,873,519,695
	1948	4,392,455	112,637,481	1,691,430,471	40,517,831	80,000,000	1,957,829,960
Bank of Nova Scotia.....	1944	3,379,190	38,327,952	405,864,414	11,155,101	36,000,000	521,267,098
	1945	2,627,777	44,765,397	470,370,278	10,334,321	36,000,000	592,507,194
	1946	2,162,317	30,626,724	550,437,110	12,574,082	36,000,000	665,988,178
	1947	1,932,413	25,702,906	587,577,342	12,426,171	36,000,000	696,880,300
	1948	1,535,056	20,634,134	624,644,899	13,016,868	36,000,000	725,864,470
Bank of Toronto...	1944	1,132,064	28,402,924	218,537,714	2,329,809	18,000,000	269,995,667
	1945	931,104	33,437,709	255,562,266	2,644,258	18,000,000	312,461,945
	1946	788,718	20,790,083	296,799,564	3,804,811	18,333,333	344,001,563
	1947	696,467	17,051,657	324,308,066	5,317,181	20,000,000	376,466,757
	1948	631,158	13,908,247	362,944,852	5,317,967	20,000,000	407,627,107
Provincial Bank of Canada.....	1944	977,137	5,867,589	90,631,964	41,155	5,000,000	102,674,119
	1945	664,250	7,023,998	106,912,715	72,055	5,000,000	119,828,249
	1946	493,212	4,461,904	126,364,229	89,758	5,166,667	137,051,857
	1947	384,708	3,011,102	133,264,087	94,608	6,000,000	143,775,718
	1948	316,766	2,662,392	143,949,047	1,656,324	6,000,000	156,874,730
Canadian Bank of Commerce.....	1944	7,483,844	95,035,197	925,337,039	18,866,975	50,000,000	1,120,756,466
	1945	5,951,853	108,869,350	1,037,577,161	21,031,368	50,000,000	1,247,138,372
	1946	4,865,235	83,533,919	1,176,811,329	23,828,070	52,500,000	1,375,343,222
	1947	4,099,150	68,773,283	1,215,893,902	19,689,013	60,000,000	1,412,882,716
	1948	3,570,826	65,890,265	1,280,048,414	19,949,550	60,000,000	1,482,052,049
Royal Bank of Canada.....	1944	10,252,560	130,358,216	1,369,275,745	25,292,090	55,000,000	1,630,586,822
	1945	7,742,985	147,554,397	1,525,668,270	25,446,212	55,000,000	1,806,882,175
	1946	6,154,119	103,365,942	1,709,606,112	42,960,011	58,333,334	1,990,782,082
	1947	5,098,648	84,222,561	1,816,826,776	54,770,577	75,000,000	2,116,395,179
	1948	4,500,346	69,948,684	1,862,485,458	51,905,653	75,666,667	2,136,124,395
Dominion Bank....	1944	1,394,166	24,601,509	207,799,067	3,554,833	14,000,000	256,941,539
	1945	1,082,621	26,596,644	239,763,242	6,339,955	14,000,000	295,590,782
	1946	851,661	20,852,310	278,694,006	6,859,878	14,500,000	331,057,224
	1947	713,331	19,081,958	300,609,534	5,920,544	16,250,000	354,014,415
	1948	628,455	16,998,800	327,649,965	8,008,815	17,000,000	380,695,733
Banque Canadienne Nationale.....	1944	1,751,239	18,186,869	233,807,035	2,775,445	12,000,000	269,063,320
	1945	1,127,306	24,563,045	270,067,618	3,453,767	12,000,000	311,954,331
	1946	863,453	15,478,088	318,262,723	3,977,782	12,333,333	352,389,588
	1947	726,021	10,963,421	349,373,975	5,082,650	14,000,000	381,717,338
	1948	637,615	10,928,193	364,371,461	5,102,830	14,000,000	397,093,101
Imperial Bank of Canada.....	1944	1,513,474	56,797,922	227,432,798	4,476,631	15,000,000	308,214,905
	1945	1,238,610	62,002,499	267,764,839	5,388,189	15,000,000	356,125,943
	1946	1,046,999	40,674,465	319,223,972	7,334,188	15,000,000	389,891,738
	1947	916,549	38,557,586	335,925,845	8,906,301	15,500,000	409,270,368
	1948	819,559	38,640,599	371,565,561	11,440,063	17,000,000	450,546,032
Barclays Bank (Canada).....	1944	401,680	4,761,778	18,187,604	4,224,173	2,250,000	31,136,212
	1945	202,085	4,536,331	21,042,460	4,529,209	2,250,000	34,004,638
	1946	127,313	3,549,553	21,440,646	4,447,088	2,250,000	33,357,008
	1947	94,552	4,111,656	19,625,642	6,876,702	2,250,000	35,214,083
	1948	76,835	2,760,272	18,677,757	6,912,715	2,250,000	32,119,375
<b>Totals.....</b>	1944	<b>37,056,187</b>	<b>569,668,148</b>	<b>4,852,634,830</b>	<b>108,493,730</b>	<b>282,250,000</b>	<b>5,971,693,095</b>
	1945	<b>28,636,174</b>	<b>632,648,089</b>	<b>5,507,349,887</b>	<b>118,080,697</b>	<b>282,250,000</b>	<b>6,720,867,676</b>
	1946	<b>23,172,717</b>	<b>483,322,212</b>	<b>6,288,232,941</b>	<b>147,299,287</b>	<b>290,166,667</b>	<b>7,414,146,084</b>
	1947	<b>19,675,994</b>	<b>404,041,275</b>	<b>6,671,314,609</b>	<b>161,800,864</b>	<b>323,500,000</b>	<b>7,800,127,449</b>
	1948	<b>17,109,071</b>	<b>355,009,067</b>	<b>7,047,767,885</b>	<b>163,828,616</b>	<b>327,916,667</b>	<b>8,126,827,002</b>

**Earnings of Chartered Banks.**—The chartered banks of Canada are for the most part nation-wide institutions, doing business in all parts of the country. Their earnings, therefore, reflect with very considerable accuracy the fluctuations of general business.

**18.—Net Profits of Chartered Banks and Rates of Dividend Paid, for their Business Years Ended 1943-48**

Bank	1943		1944		1945	
	Net Profits	Dividend Rate	Net Profits	Dividend Rate	Net Profits	Dividend Rate
	\$	p.c.	\$	p.c.	\$	p.c.
Bank of Montreal.....	2,802,834	6	2,694,300	6	2,934,681	6
Bank of Nova Scotia.....	1,252,962	10	1,045,420 <sup>1</sup>	10	1,304,497	10
Bank of Toronto.....	829,807	10	996,271	10	935,137	10
Provincial Bank of Canada.....	210,069	5	208,542	5	239,960	5
Canadian Bank of Commerce.....	2,044,334	6	2,046,972	6	2,195,527	6
Royal Bank of Canada.....	2,656,289	6	2,532,183	6	3,098,847	6
Dominion Bank.....	659,249	8	665,974	8	653,241	8
Banque Canadienne Nationale.....	601,266	6	471,027	6	478,073	6
Imperial Bank of Canada.....	686,934	8	695,336	8	701,445	8
Barclays Bank (Canada).....	2	..	2	..	2	..
<b>Totals, Net Profits.....</b>	<b>11,743,744</b>	...	<b>11,356,025</b>	...	<b>12,541,408</b>	...
	1946		1947		1948	
	Net Profits	Dividend Rate	Net Profits	Dividend Rate	Net Profits	Dividend Rate
	\$	p.c.	\$	p.c.	\$	p.c.
Bank of Montreal.....	4,487,782	8 <sup>3</sup>	5,423,285	8	5,459,669	8 <sup>4</sup>
Bank of Nova Scotia.....	1,588,455	10-12 <sup>5</sup>	1,992,277	12 <sup>6</sup>	2,007,346	12 <sup>4</sup>
Bank of Toronto.....	1,194,458	12	1,187,762	12	1,190,820	12 <sup>4</sup>
Provincial Bank of Canada.....	246,284	5-6 <sup>5</sup>	321,507	6-7 <sup>5</sup>	369,534	6 <sup>7</sup>
Canadian Bank of Commerce.....	2,851,240	6-8 <sup>5</sup>	3,201,108	8 <sup>5</sup>	3,528,358	8 <sup>4</sup>
Royal Bank of Canada.....	4,020,895	8	4,981,832	8-10 <sup>5</sup>	5,558,545	10
Dominion Bank.....	860,768	8-10 <sup>5</sup>	971,678	8-10 <sup>5</sup>	1,122,096	10
Banque Canadienne Nationale.....	506,590	7	528,970	7-8 <sup>5</sup>	589,885	8
Imperial Bank of Canada.....	717,300	10	840,659	10	969,112	12 <sup>5</sup>
Barclays Bank (Canada).....	2	..	2	..	2	..
<b>Totals, Net Profits.....</b>	<b>16,473,772</b>	...	<b>19,449,078</b>	...	<b>20,795,365</b>	...

<sup>1</sup> Ten months only, due to change in Bank's fiscal year-end.  
extra distribution of 15 cents a share.

<sup>4</sup> Plus extra of 2 p.c.

<sup>7</sup> Plus extra of 1 p.c.

<sup>2</sup> Not reported.

<sup>5</sup> Increased.

<sup>3</sup> Includes

<sup>6</sup> Exclusive

**Branches of Chartered Banks.**—During the period from 1881 to 1901, the number of chartered banks doing business in Canada under the Bank Act remained almost the same (36 in 1881 and 1891, and 34 in 1901), but during the present century there has been in banking, as in industry, an era of amalgamations, the number of banks having declined to 25 in 1913 and to 10 in 1931. That this has been far from involving a curtailment of banking facilities is seen in Table 9, which shows the development of the banking business since 1933, and in Table 19, which compares the number of branch banks existing in Canada at different periods, and indicates a growth from 123 in 1868 to 4,676, inclusive of sub-agencies, at Dec. 31, 1920. As at Dec. 31, 1944, the total stood at 3,087 (exclusive of 132 branches and 3 sub-agencies in other countries) the reduction having resulted from the closing

of some unprofitable branches, and also from contractions brought about by war-time conditions. By Dec. 31, 1948, the total had increased to 3,410 (exclusive of 137 branches and four sub-agencies outside Canada).

**19.—Branches of Chartered Banks in Canada, by Provinces, as at Dec. 31, for Certain Years 1868-1948**

Province	1868	1902	1905	1920 <sup>1</sup>	1926 <sup>1</sup>	1930 <sup>1</sup>	1940 <sup>1</sup>	1943 <sup>1</sup>	1945 <sup>1</sup>	1946 <sup>1</sup>	1947 <sup>1</sup>	1948 <sup>1</sup>
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Prince Edward Island....	—	9	10	41	28	28	25	23	23	23	23	23
Nova Scotia.....	5	89	101	169	134	138	134	126	126	127	128	132
New Brunswick.....	4	35	49	121	101	102	97	93	94	96	96	97
Quebec.....	12	137	196	1,150	1,072	1,183	1,083	1,041	1,045	1,067	1,091	1,118
Ontario.....	100	349	549	1,586	1,326	1,409	1,208	1,092	1,098	1,117	1,156	1,176
Manitoba.....	—	52	95	349	224	239	162	148	148	151	153	157
Saskatchewan.....	—	30	87	591	427	447	233	213	214	226	231	230
Alberta.....	—	46	55	242	186	229	172	163	168	190	202	210
British Columbia.....	—	—	—	3	3	3	192	180	184	216	237	259
Yukon and N.W.T.....	—	—	—	—	—	—	5	5	6	6	6	8
<b>Canada.....</b>	<b>123</b>	<b>747</b>	<b>1,145</b>	<b>4,676</b>	<b>3,770</b>	<b>4,083</b>	<b>3,311</b>	<b>3,084</b>	<b>3,106</b>	<b>3,219</b>	<b>3,323</b>	<b>3,410</b>

<sup>1</sup> Includes sub-agencies for receiving deposits for the banks employing them.

**20.—Branches of Individual Canadian Chartered Banks in each Province and outside Canada, as at Dec. 31, 1948**

NOTE.—This table does not include sub-agencies which numbered 661 in 1948 including four outside Canada.

Bank	P.E. Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba
	No.	No.	No.	No.	No.	No.
Bank of Montreal.....	1	13	14	106	176	26
Bank of Nova Scotia.....	8	39	35	23	120	6
Bank of Toronto.....	—	—	—	18	116	14
Provincial Bank of Canada.....	2	—	10	109	12	—
Canadian Bank of Commerce.....	6	16	7	63	210	32
Royal Bank of Canada.....	5	62	22	83	202	53
Dominion Bank.....	—	—	1	10	98	12
Banque Canadienne Nationale.....	—	—	—	214	11	3
Imperial Bank of Canada.....	—	—	—	6	114	7
Barclays Bank (Canada).....	—	—	—	2	1	—
<b>Totals.....</b>	<b>22</b>	<b>130</b>	<b>89</b>	<b>634</b>	<b>1,060</b>	<b>153</b>
	Saskatchewan	Alberta	British Columbia	Yukon and N.W.T.	Outside Canada	Total
	No.	No.	No.	No.	No.	No.
Bank of Montreal.....	35	46	57	1	11	486
Bank of Nova Scotia.....	19	15	24	—	40	329
Bank of Toronto.....	24	12	14	1	—	199
Provincial Bank of Canada.....	—	—	—	—	—	133
Canadian Bank of Commerce.....	45	43	66	3	13	504
Royal Bank of Canada.....	73	51	55	1	70	677
Dominion Bank.....	5	6	4	—	2	138
Banque Canadienne Nationale.....	1	—	—	—	1	230
Imperial Bank of Canada.....	23	23	16	1	—	190
Barclays Bank (Canada).....	—	—	1	—	—	4
<b>Totals.....</b>	<b>225</b>	<b>196</b>	<b>237</b>	<b>7</b>	<b>137</b>	<b>2,890</b>

The number of branches of Canadian banks doing business outside Canada increased rapidly during the First World War and the early post-war period, rising to a total of 206 in 1921. The number gradually declined to 136 in 1947; in 1948 it was 137.



**21.—Branches of Individual Canadian Chartered Banks outside Canada, with their Locations, as at Dec. 31, 1947 and 1948**

Bank and Location	1947	1948	Bank and Location	1947	1948
No.	No.	No.	No.	No.	No.
Bank of Montreal—			Royal Bank of Canada—		
Newfoundland.....	6 <sup>1</sup>	6 <sup>1</sup>	Newfoundland.....	8	9
United Kingdom.....	2	2	United Kingdom.....	2	2
United States.....	3	3	British West Indies.....	12	12
Bank of Nova Scotia—			United States.....	1	1
Newfoundland.....	14	15	Cuba.....	17	17
United Kingdom.....	1	1	Puerto Rico.....	3	3
British West Indies.....	12 <sup>2</sup>	13 <sup>2</sup>	Central and South America.....	21	19
Dominican Republic.....	1	1	Haiti.....	1	1
United States.....	1	1	Dominican Republic.....	5	5
Cuba.....	7	7	France.....	1	1
Puerto Rico.....	2	2	Dominion Bank—		
Canadian Bank of Commerce—			United Kingdom.....	1	1
Newfoundland.....	3	3	United States.....	1	1
United Kingdom.....	1	1	Banque Canadienne Nationale—		
British West Indies.....	4	4	France.....	1	1
United States.....	5	5			
			<b>Totals.....</b>	<b>136<sup>3</sup></b>	<b>137<sup>3</sup></b>

<sup>1</sup> Exclusive of three sub-agencies.

<sup>2</sup> Exclusive of one sub-agency.

<sup>3</sup> Exclusive of four sub-agencies.

## Section 6.—Government and Other Savings Banks

There are three distinct types of savings banks in Canada in addition to the savings departments of the chartered banks and of trust and loan companies. First there is the Post Office Savings Bank, in which the deposits are a direct obligation of the Federal Government. Secondly, there are Provincial Government savings banking institutions in Ontario and in Alberta, where the depositor becomes a direct creditor of the province. Thirdly, there are, in the Province of Quebec, two important savings banks, the Montreal City and District Savings Bank and La Banque d'Économie de Québec, established under federal legislation and reporting monthly to the Department of Finance. Other agencies for the promotion of thrift are the co-operative credit unions, which encourage the regular saving of amounts too small to deposit in a bank.

**Post Office Savings Bank.**—The Post Office Savings Bank was established under the Post Office Act of 1867 (31 Vict., c. 10) in order to “enlarge the facilities now available for the deposit of small savings, to make the Post Office available for that purpose, and to give the direct security of the nation to every depositor for repayment of all money deposited by him together with the interest due thereon”. Branches of the Federal Government Savings Bank under the Department of Finance were gradually amalgamated with this Bank over a period of 50 years, the amalgamation being completed in March, 1929.

## 22.—Financial Business of the Post Office Savings Bank, as at Mar. 31, 1943-48

NOTE.—Figures of total deposits for 1868-1917 will be found at pp. 833-834 of the 1926 Year Book and for 1918-42 at p. 978 of the 1946 edition.

Item	1943	1944	1945	1946	1947	1948
\$	\$	\$	\$	\$	\$	\$
Deposits—						
Total.....	24,373,991	28,296,208	33,468,799	35,537,154	35,764,512	36,226,060
Made during year.....	8,386,979	13,844,802	18,568,005	18,686,476	13,834,474	11,983,690
Interest on deposits.....	438,910	499,570	581,472	656,456	681,694	690,584
Totals, cash and interest....	8,825,889	14,344,372	19,149,477	19,342,932	14,516,168	12,674,274
Withdrawals.....	6,123,311	10,422,155	13,977,025	17,274,578	14,288,809	12,212,726

**Provincial Government Savings Banks.**—Institutions for the deposit of savings are operated by the Provincial Governments of Ontario and Alberta. A similar institution was in operation in Manitoba from 1924 to 1932, when the depositors' accounts were taken over by the chartered banks.

**Ontario.**—The establishment of the Province of Ontario Savings Office was authorized by the Ontario Legislature at the 1921 session and in March, 1922, the first branches were opened. Interest at the rate of 1 and  $1\frac{1}{2}$  p.c. per annum compounded half-yearly is paid on accounts. The deposits are repayable on demand. Total deposits at Mar. 31, 1949, were \$65,149,170, and the number of depositors at that date was, approximately, 100,000. Twenty-two branches are in operation throughout the Province.

**Alberta.**—In Alberta, the Provincial Treasury receives savings deposits and issues demand savings certificates bearing interest at  $1\frac{1}{2}$  p.c., or term certificates for one, two, three, four or five years, in denominations of \$25 and upwards, bearing interest at 2 p.c. for one or two years,  $2\frac{1}{4}$  p.c. for three or four years and  $2\frac{1}{2}$  p.c. for five years. The total amount in savings certificates at Mar. 31, 1949, was \$1,030,964 made up of \$188,639 in demand certificates and \$842,325 in term certificates.

In addition, savings deposits are accepted at 45 Provincial Treasury Branches throughout the Province. The total of these deposits at Mar. 31, 1949, was \$14,755,105 made up of \$10,680,630 bearing interest at  $\frac{1}{2}$  of 1 p.c. to  $1\frac{1}{2}$  p.c. and payable on demand, and \$4,074,475 bearing interest at 1 p.c. to 2 p.c. and payable one year after deposit.

**Penny Banks.**—Operations of the Penny Bank of Ontario were suspended in 1943 and the Penny Bank Act (R.S.C. 1927, c. 13) was repealed in 1948.

**Other Savings Banks.**—The Montreal City and District Savings Bank, founded in 1846 and now operating under a charter of 1871, had at Mar. 31, 1949, a paid-up capital and reserve of \$6,000,000, savings deposits of \$160,628,774, and total liabilities of \$167,421,415. Total assets amounted to \$167,771,628, including over \$138,000,000 of federal, provincial and municipal securities. La Banque d'Économie de Québec, founded in 1848 (as La Caisse d'Économie de Notre-Dame de Québec) under the auspices of the St. Vincent de Paul Society, incorporated by Act of the Canadian Legislature in 1855, and given a federal charter by 34 Vict., c. 7, had at Mar. 31, 1949, savings deposits of \$23,621,841, and a paid-up capital and reserve of \$3,000,000. Liabilities amounted to \$27,598,745 and total assets to \$27,971,055.

Table 23 shows the savings deposits in the Montreal City and District Savings Bank and La Banque d'Économie de Québec for the years ended Mar. 31, 1935-49.

### 23.—Deposits in the Montreal City and District Savings Bank and La Banque d'Économie de Québec, Years Ended Mar. 31, 1935-49

NOTE.—Figures for the years 1868-1926 appear at pp. 833-834 of the 1926 Year Book; for the years 1927-34 at p. 980 of the 1946 edition.

Year	Deposits	Year	Deposits	Year	Deposits
	\$		\$		\$
1935.....	66,496,595	1940.....	79,838,963	1945.....	122,574,607
1936.....	69,665,415	1941.....	76,391,775	1946.....	140,584,525
1937.....	73,450,133	1942.....	74,386,412	1947.....	153,137,545
1938.....	77,260,433	1943.....	84,023,772	1948.....	170,103,786
1939.....	81,566,754	1944.....	103,276,757	1949.....	184,250,615

**Credit Unions.\***—A credit union is a regularly incorporated group of persons who have joined together to pool and save their money in order to make available for themselves and other members a fund from which members may borrow at reasonable rates of interest for "provident and productive purposes".

This idea was introduced to the North American continent by a Canadian and the first credit union was established in 1900 at Lévis, Que. In 1948 there were 1,078 credit unions in the Province of Quebec alone. In 1922, Ontario passed legislation providing for the legal incorporation of credit unions and by 1939 all provinces had enacted similar legislation. For the year 1948 there were 2,608 credit unions chartered in Canada with a total reported membership of 850,608. This represents an increase of 92 credit unions during the year and an increase in membership of about 71,000 people. Total assets in 1948 were \$253,600,000 compared with \$221,000,000 in 1947. Total savings of credit-union members in Canada during 1948 amounted to \$239,300,000, an increase of over \$30,000,000 during the year. Loans to members in 1948 amounted to \$130,300,000 and since the inception of the first credit union 49 years ago a total of over \$555,000,000 has been lent to members for various purposes.

The Province of Quebec leads in credit-union activity, reporting a membership of almost 540,000 and total assets of over \$205,000,000. Ontario follows with 371 credit unions, a membership of 95,000 and assets of \$16,500,000.

**Leagues and Federations.**—In all provinces credit unions are organized into one or more groups known as leagues or federations. There are in Canada a total of 14 different leagues and federations which count among their membership the majority of all chartered credit unions. The purpose of these leagues and federations is to encourage and assist in the organization and promotion of credit unions, to aid in management and to give advice in bookkeeping and accounting procedures. Some leagues also arrange for group bonding of treasurers and the co-operative purchase of bookkeeping and office supplies. Most of these leagues are affiliated with the Credit Union National Association (CUNA) in the United States, a national body organized for the protection and promotion of credit unions in that country. CUNA also makes available to affiliated leagues certain insurance services as well as credit union supplies on a co-operative basis.

**Central Credit Unions.**—As credit unions grew and developed the need for central banking facilities became apparent and, accordingly, provincial central credit unions with membership open to credit unions, and in some provinces to co-operatives as well, were organized to provide loans from the surplus funds of other member organizations. There are now in Canada 19 such central credit unions, 10 of which are located in the Province of Quebec.

Under the guidance of the Co-operative Union of Canada, a national committee has been studying the possibility of a national co-operative credit society which will serve as a central bank for the various provincial central credit unions.

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\*Prepared by J. E. O'Meara, Economics Division, Marketing Service, Department of Agriculture, Ottawa.



## 24.—Growth of Credit Unions in Canada, 1915-48

Year	Provinces in which Unions Exist	Credit Unions	Members	Assets
	No.	No.	No.	\$
1915.....	1 <sup>1</sup>	91	23,614	2,027,728
1920.....	1 <sup>1</sup>	113	31,752	6,306,965
1925.....	1 <sup>1</sup>	122	33,279	8,261,515
1930.....	2 <sup>2</sup>	179	45,767	11,178,810
1935.....	3 <sup>3</sup>	277	52,045	10,173,997
1937.....	7 <sup>4</sup>	441	77,177	13,759,468
1939.....	9	844	151,554	20,680,594
1940.....	9	1,167	201,137	25,069,685
1941.....	9	1,314	238,463	31,230,813
1942.....	9	1,486	295,984	43,971,925
1943.....	9	1,780	374,069	69,219,654
1944.....	9	2,051	478,841	92,574,440
1945.....	9	2,219	590,794	145,890,889
1946.....	9	2,422	688,739	187,507,303
1947.....	9	2,516 <sup>c</sup>	779,199 <sup>c</sup>	221,116,168 <sup>c</sup>
1948.....	9	2,608	850,608	253,584,282

<sup>1</sup> Quebec.      <sup>2</sup> Quebec and Ontario.      <sup>3</sup> Quebec, Ontario and Nova Scotia.  
 Ontario, Nova Scotia, Prince Edward Island, New Brunswick, Manitoba and Saskatchewan.

<sup>4</sup> Quebec.

## 25.—Summary Statistics of Credit Unions, by Provinces, 1947 and 1948

NOTE.—The credit-union fiscal year in P.E.I., N.S. and N.B. ends Sept. 30; in the other provinces it ends Dec. 31.

Province	Credit Unions Chart- ered	Credit Unions Report- ing	Mem- bers	Assets	Shares	Deposits	Loans to Members During Year	Total Loans since Inception
	No.	No.	No.	\$	\$	\$	\$	\$
<b>1947</b>								
P.E.I.....	52	52	9,397	631,945	456,208	105,594	423,236	1,860,778
N.S.....	219	219	36,216	3,441,580	2,925,325	72,074	2,255,584	14,415,609
N.B.....	168	151	39,666	4,049,421	3,568,810	128,434	2,942,076	11,410,030
Que.—								
Desjardins...	1,021	1,011	486,836	176,372,026	10,980,964	157,500,068	50,000,000	271,024,709
Que. League...	16	11	4,070	622,969	251,546	260,464	423,673	1,369,403
Montreal Fed.	9	9	14,437	7,955,855	653,852	6,965,736	1,810,984	12,732,045
Ont.....	333	293	76,081	12,253,285	5,742,630	5,301,223	9,372,635	39,626,070
Man.....	122	109	22,493	2,890,456	1,292,967	1,406,531	2,802,287	8,073,642
Sask.....	194	194	34,020	6,277,607	3,980,363	1,752,962	4,649,149	14,317,818
Alta.....	208	190	22,758	2,468,563	1,939,951	305,833	2,307,186	8,371,781
B.C.....	174 <sup>c</sup>	128 <sup>c</sup>	33,225	4,152,461	3,271,271	517,477	3,646,895	8,950,905
<b>Totals, 1947...</b>	<b>2,516<sup>c</sup></b>	<b>2,367<sup>c</sup></b>	<b>779,199<sup>c</sup></b>	<b>221,116,168<sup>c</sup></b>	<b>35,063,887<sup>c</sup></b>	<b>174,316,396<sup>c</sup></b>	<b>80,633,705<sup>c</sup></b>	<b>392,152,790<sup>c</sup></b>
<b>1948</b>								
P.E.I.....	53	53	9,733	686,722	517,881	96,355	447,298	2,308,076
N.S.....	216	191	37,571	3,833,454	3,332,505	77,091	2,473,123	16,888,732
N.B.....	160	158	41,777	4,414,097	3,914,815	115,834	2,730,822	14,140,952
Que.—								
Desjardins...	1,048	1,032	520,428	196,013,914	12,364,530	173,961,545	91,021,358	394,290,408
Que. League...	21	11	4,075	797,238	295,191	383,948	423,363	1,716,812
Montreal Fed.	9	9	15,049	8,833,246	702,650	7,723,448	1,887,046	14,619,090
Ont.....	371	362	95,751	16,487,314	8,484,642	6,484,162	12,888,351	52,514,421
Man.....	121	108	25,282	3,928,528	1,861,301	1,837,800	3,449,942	10,968,992
Sask.....	217	217	38,895	8,344,522	5,329,980	2,292,670	6,143,444	20,461,263
Alta.....	201	192	24,761	3,221,964	2,581,899	395,619	2,754,687	11,126,468
B.C.....	191	149	37,286	7,023,283	5,627,707	979,844	6,065,803	16,450,396
<b>Totals, 1948...</b>	<b>2,608</b>	<b>2,482</b>	<b>850,608</b>	<b>253,584,282</b>	<b>45,013,101</b>	<b>194,348,316</b>	<b>130,285,237</b>	<b>555,485,610</b>

## Section 7.—Foreign Exchange

### Subsection 1.—Exchange Rates

A brief account of foreign exchange rates to 1948 is given at p. 1052 of the 1948-49 Year Book.

Since then, under pressure of dollar shortage and dwindling resources of the Commonwealth pool's dollar holdings, the pound was devalued, Sept. 18, 1949, by 30·5 p.c. to the new rate of \$2·80 in U.S. currency. Almost all Sterling Area (with the exception of Pakistan and British Honduras) and many other countries devalued their rates of exchange by 8 to 33 p.c. On Sept. 19, a new rate of exchange for the Canadian dollar was established at about 10 p.c. below the old, the new buying rate for the U.S. dollar being set at \$1·10 Canadian.

### Subsection 2.—The Foreign Exchange Control Board\*

The following paragraphs cover the main operations of the Foreign Exchange Control Board during 1948 and the first half of 1949. They are based largely on the Board's Report for 1948. Reviews of the Board's activities in earlier years may be found in previous Year Books.

**Changes in Canada's Foreign Exchange Reserves.**—The variations in Canada's holdings of gold and U.S. dollars since the commencement of exchange control are given in Table 26. The developments in the balance of international payments which gave rise to the increase during 1948 are reviewed in the Foreign Trade Chapter at pp. 945-952.

**26.—Canada's Holdings of Gold and United States Dollars, as at Dec. 31, 1939-49**  
(Millions of U. S. Dollars)

Year	Exchange Fund Account and Bank of Canada		Other Government Account of Canada Accounts	Total <sup>1</sup>	Year	Exchange Fund Account and Bank of Canada		Other Government Account of Canada Accounts	Total <sup>1</sup>
	Gold	U.S. Dollars	U.S. Dollars	Gold and U.S. Dollars		Gold	U.S. Dollars	U.S. Dollars	Gold and U.S. Dollars
1939 <sup>2</sup> ....	204·9	33·8	22·4	393·1	1944....	293·9	506·2	102·1	902·2
1939.....	215·0	54·8	33·4	404·2	1945....	353·9	922·0	232·1	1,508·0
1940.....	135·5	172·8	20·8	332·1	1946....	536·0	686·3	22·6	1,244·9
1941.....	135·9	28·2	23·5	187·6	1947....	286·6	171·8	43·3	501·7
1942.....	154·9	88·0	75·6	318·5	1948....	401·3	574·5	22·0	997·8
1943.....	224·4	348·8	76·4	649·6	1949....	486·4	594·1	36·6	1,117·1 <sup>3</sup>

<sup>1</sup> Includes private holdings, exclusive of working balances, of \$132,000,000 at Sept. 15, 1939, \$98,000,000 at Dec. 31, 1939, and \$2,000,000 at Dec. 31, 1940. <sup>2</sup> Sept. 15. <sup>3</sup> Excludes \$18,200,000 borrowed in the United States in August, 1949, and set aside for the retirement, on Feb. 1, 1950, of a security issue guaranteed by the Federal Government and payable at the holder's option in United States dollars.

**Changes in Exchange Control Policies and Methods.**—Since the latter part of 1948, sympathetic consideration has been given by the Foreign Exchange Control Board to applications by residents who wish to obtain United States dollars to exploit patent rights abroad, acquire distribution franchises abroad similar to those operated in Canada and to establish businesses abroad of the same type as those carried on in Canada by the applicants. Prior to that time, applications to make new direct capital investments in United States dollars were approved only in cases where they would produce exports from Canada or secure necessary sources of imports. In both types of applications, where appreciable amounts are involved, financing through non-resident sources is ordinarily required.

\* Revised under the direction of R. H. Tarr, Secretary, Foreign Exchange Control Board, Ottawa.

Since November, 1948, favourable consideration has been given to applications by Canadian subsidiaries and branches of foreign companies, which had an accumulation of earnings made since 1939, to remit more than one years accumulated earnings in cases where their net cash position is abnormally large and clearly surplus to their actual and anticipated requirements. Previously, remittances of earnings were limited to one years earnings during each fiscal year of an applicant.

Certain types of payments by residents to non-residents, which represent withdrawals of capital from Canada by the latter, have been approved only on condition that the non-residents simultaneously reinvest the Canadian dollars in certain types of Canadian domestic securities. These securities they were then free to sell on the United States market. This procedure had the disadvantage of increasing the cost to Canadians of acquiring productive capital assets owned in Canada by non-residents, since the discount on Canadian domestic securities in the United States market has been greater than that on Canadian dollars. Since the latter part of 1948, applications have been considered for the acquisition from non-residents for Canadian dollars, without requiring reinvestment, of assets such as timber limits and mining, oil and gas properties which are required in connection with operations being carried on in Canada by the residents and also for the acquisition by residents of outright ownership or effective control of non-resident-owned or -controlled productive enterprises in Canada.

In November, 1948, the Board was instructed to limit the amount of United States dollars made available to Canadian residents for travel except for business, health or educational purposes to \$150 per person (\$100 in the case of children under 11 years) during the period from Nov. 16, 1948, to Nov. 15, 1949. This is the same as the travel ration for the preceding twelve-month period. The arrangement was continued for a further period of twelve months in November, 1949.

Since March, 1949, Canadians have been able to obtain permits through their banks for the expenditure of any reasonable amounts of Canadian dollars for travel in France, Belgium, Luxembourg, the Netherlands and Norway. As far as Canadian travellers are concerned these countries are, therefore, now placed in a similar position to those in the Sterling Area. Previously, travel expenditure in the former countries was, in practice, made in United States dollars. In March, 1949, arrangements were completed whereby Canadian dollars spent in these countries for travel purposes would be convertible into local currencies at the same rate as would United States dollars; since then, however, these travel expenditures have been authorized in Canadian dollars or local currencies only. Effective July 11, 1949, the Foreign Exchange Control Regulations were amended to add Sweden to the list of 'special arrangement' countries. In consequence Canadian dollars have since that time been acceptable in payment for exports to Sweden, and reasonable amounts of Canadian dollars for travel expenditure there have been authorized. Late in August, 1949, Switzerland was added to these countries.

Under the Foreign Exchange Control Act a permit from the Foreign Exchange Control Board is required for the sale of goods for export from Canada otherwise than on terms providing for payment of the fair value within six months in a currency designated in the Regulations as acceptable therefor. Until the latter part of 1948 there was little occasion for exporters to seek to export on terms other than those specified. With the growing severity of import and exchange restrictions imposed by many countries there have arisen an increasing number of cases where goods cannot be exported on the prescribed terms of payment. Where in these cases alternative proposals for payment are acceptable to foreign buyers and Canadian exporters the Board has indicated its readiness to consider applications for the necessary permits.



The main types of cases which appear to warrant consideration are those where—  
(a) payment is to be deferred beyond the normal six-month period, or (b) payment is to be received in currencies not freely convertible into United States dollars or into sterling and the exporter is prepared to assume the risks involved or (c) payment is to be received in sterling from a non-sterling area country where the United Kingdom exchange control authorities are prepared to authorize the transfer, or (d) payment is to be received in the form of goods of equivalent value.

On Apr. 7, 1949, the Foreign Exchange Control Regulations were amended as required by the entry of Newfoundland into Confederation. As the system of foreign exchange control in force in Newfoundland before Union differed only in comparatively minor details from that in force in Canada, the change-over did not give rise to any appreciable change in foreign exchange control practices in either area.

On Mar. 25, 1949, the Foreign Exchange Control Act was amended to provide for its continuance in force until sixty days after the commencement of the first session of Parliament commencing in the year 1951.

## PART II.—MISCELLANEOUS COMMERCIAL FINANCE

### Section 1.—Loan and Trust Companies\*

The 1934-35 Year Book presents at p. 993 an outline of the development of loan and trust companies in Canada from 1844 to 1913.

The laws relating to loan and trust companies were revised by the Loan and Trust Companies Acts of 1914 (4-5 Geo. V, cc. 40 and 55), with the result that the statistics of provincially incorporated loan and trust companies ceased to be collected. However, summary statistics of provincial companies for 1946 and 1947 have been supplied by those companies and are included in Table 1 in order to complete the statistics for loan and trust companies throughout Canada. It is estimated that more than 90 p.c. of the business of provincial companies is represented in the figures, so that they may be accepted as fairly inclusive and representative of the volume of business transacted as compared with Dominion registered companies. The statistics of Tables 2 and 3 refer only to those companies operating under Dominion charter, except that, beginning with 1925, the statistics of loan companies and trust companies incorporated by the Province of Nova Scotia and brought by the laws of that Province under the examination of the Federal Department of Insurance, have been included in Tables 2 and 3 as well as those for trust companies in New Brunswick since 1934 and in Manitoba since 1938. In 1920, the Department of Insurance took over from the Department of Finance the administration of the legislation concerning Dominion loan and trust companies.

The progress of the aggregate of loan company business in Canada is indicated by the increase in the book value of the assets of all loan companies from \$188,637,298 in 1922 to \$213,649,794 in 1931, and to \$231,125,916 in 1947. The assets of trust companies (not including estates, trust and agency funds, which cannot be regarded as assets in the same sense as company and guaranteed funds) increased from \$154,202,165 in 1928 to \$332,937,016 in 1947. In the former year, the total of estates, trust and agency funds administered amounted to \$1,077,953,643 and in 1947 to \$3,216,862,714.

\* Revised under the direction of R. W. Warwick, Superintendent of Insurance, Department of Insurance, Ottawa.

**Functions of Loan Companies.**—The principal function of loan companies is the lending of funds on first-mortgage security, the money thus made available for development purposes being secured mainly by the sale of debentures to the investing public and by savings-department deposits. In the war years from 1939 to 1945 the amount invested in mortgages declined by almost \$27,000,000, which was practically all accounted for by an increase in the amount of bonds and stocks held. The 1947 figure of \$79,000,000 was greater by \$6,000,000 than that for 1946.

**Functions of Trust Companies.**—Trust companies act as executors, trustees and administrators under wills or by appointment, as trustees under marriage or other settlements, as agents or attorneys in the management of the estates of the living, as guardians of minor or incapable persons, as financial agents for municipalities and companies and, where so appointed, as authorized trustees in bankruptcy. Such companies receive deposits for investment, but both the investing and lending of such deposits and of actual trust funds are restricted by law.

**Statistics of Loan and Trust Companies.**—The figures in Table 1 are of particular interest in the case of trust companies. On account of the nature of their functions, they are mainly provincial institutions, their chief duties being intimately connected with the matter of probate, which lies within the sole jurisdiction of the provinces.

**1.—Operations of Provincial and Dominion Loan and Trust Companies as at Dec. 31, 1946 and 1947**

Item	1946			1947		
	Provincial Companies <sup>1</sup>	Dominion Companies	Total	Provincial Companies <sup>1</sup>	Dominion Companies	Total
	\$	\$	\$	\$	\$	\$
<b>Loan Companies—</b>						
Assets (book values).....	70,345,417	145,016,997	215,362,414	76,008,059	155,117,857	231,125,916
Liabilities to the public.....	44,343,248	113,605,949	157,949,197	46,629,627	121,257,755	167,887,382
Capital Stock—						
Authorized.....	26,683,425	56,000,000	82,683,425	21,338,625	56,000,000	77,338,625
Subscribed.....	15,871,620	21,364,000	37,235,620	16,529,276	21,504,200	38,033,476
Paid-up.....	14,512,425	17,584,586	32,097,011	15,401,461	17,929,295	33,330,756
Reserve and contingency funds.....	9,100,231	12,652,844	21,753,075	10,430,321	14,639,711	25,070,032
Other liabilities to shareholders.....	2,389,513	1,173,618	3,563,131	3,546,650	1,291,096	4,837,746
Total liabilities to shareholders.....	26,002,169	31,411,048	57,413,217	29,378,432	33,860,102	63,238,534
Net profits realized during year.....	1,283,081	1,153,125	2,436,206	1,207,433	3,108,680	4,316,113
<b>Trust Companies—</b>						
Assets (book values)						
Company funds.....	65,268,327	23,699,397	88,967,724	66,212,491	23,421,857	89,634,348
Guaranteed funds..	154,216,706	62,184,103	216,400,809	171,642,223	71,660,445	243,302,668
Totals, Assets.....	219,485,033	85,883,500	305,368,533	237,854,714	95,082,302	332,937,016
Estates, trust, and agency funds.....	2,758,442,016	392,430,578	3,150,872,594	2,735,930,898	480,931,822	3,216,862,714
Capital stock—						
Authorized.....	48,705,000	27,750,000	76,455,000	47,220,000	30,250,000	77,470,000
Subscribed.....	25,232,085	14,369,170	39,601,255	25,527,135	14,057,070	39,584,205
Paid-up.....	24,077,401	13,666,595	37,743,996	24,400,997	13,333,408	37,734,405
Reserve and contingency funds.....	22,139,978	7,396,948	29,536,926	24,209,547	7,754,554	31,964,101
Unappropriated surpluses.....	4,678,478	1,198,576	5,877,054	4,556,136	1,348,130	5,904,266
Net profits realized during year.....	3,009,779	1,290,478	4,300,257	2,877,337	898,438	3,775,775

<sup>1</sup> Excludes one loan company incorporated under the laws of Quebec the capital stock and debentures of which have been issued largely outside Canada.

## 2.—Assets and Liabilities of Loan Companies Chartered by or Supervised by the Federal Government, as at Dec. 31, 1938-47

NOTE.—For the years 1914-24, see p. 913 of the 1937 Year Book. Figures comparable to those shown below for the years 1925-37 are given at p. 985 of the 1946 edition. The figures appearing here include loan companies chartered by the Government of Nova Scotia, but inspected by the Federal Department of Insurance. Figures given in this table do not include small loans companies (see Sect. 2, pp. 1087-1088).

Year	ASSETS						
	Real Estate <sup>1</sup>	Mortgages on Real Estate	Collateral Loans	Bonds, Debentures, Stocks, and Other Company Property	Cash on Hand and in Banks	Interest, Rents, etc., Due and Accrued	Total <sup>2</sup>
	\$	\$	\$	\$	\$	\$	\$
1938.....	10,436,985	97,104,591	112,270	20,204,905	3,714,627	3,669,841	136,139,642
1939.....	10,310,781	96,342,441	103,298	19,955,311	5,184,020	3,604,690	136,358,786
1940.....	10,256,835	93,618,467	83,334	20,295,836	4,862,808	3,750,882	133,713,412
1941.....	9,585,580	90,359,176	69,759	20,826,112	5,611,182	3,566,036	130,795,391
1942.....	9,078,029	86,545,342	344,072	21,723,698	5,023,723	3,244,175	126,662,960
1943.....	8,693,127	80,043,044	211,535	29,790,718	5,328,898	2,259,608	126,943,566
1944.....	7,326,593	73,668,635	216,488	41,864,820	6,301,334	1,311,945	130,945,859
1945.....	5,933,122	69,389,403	322,607	52,328,370	4,781,357	942,041	133,774,431
1946.....	5,210,485	73,238,639	119,989	59,223,096	6,287,779	875,744	145,016,997
1947.....	4,935,971	79,292,340	156,267	62,548,095	7,357,359	768,447	155,117,857

Year	LIABILITIES						
	Liabilities to Shareholders			Liabilities to the Public			
	Capital Paid Up	Reserve Funds	Total <sup>3</sup>	Debentures and Debenture Stock		Deposits	Interest Due and Accrued
				Canada	Elsewhere and Sundries		
	\$	\$	\$	\$	\$	\$	\$
1938.....	19,340,788	14,757,224	35,478,233	57,073,555	14,959,522	27,668,490	705,622
1939.....	19,284,714	14,766,473	35,469,842	57,418,689	13,390,796	29,132,700	693,353
1940.....	19,145,919	14,262,422	34,711,441	57,579,361	12,074,573	28,276,323	678,528
1941.....	19,082,481	13,752,103	34,043,232	56,959,420	10,151,953	28,571,361	633,937
1942.....	19,038,552	13,258,225	33,524,916	55,746,073	8,269,161	27,966,674	629,124
1943.....	18,885,241	12,966,837	33,141,255	55,493,449	5,982,012	31,239,958	616,502
1944.....	18,848,684	12,834,013	33,096,778	54,350,562	3,732,950	38,749,273	648,751
1945.....	17,546,686	12,386,521	31,109,057	55,300,566	2,491,347	43,863,246	685,696
1946.....	17,584,585	12,652,845	31,411,048	56,519,776	1,918,814	54,047,133	724,062
1947.....	17,929,296	14,639,710	33,860,101	58,603,773	1,597,345	59,889,951	785,173

<sup>1</sup> Book value of real estate for company use and other real estate.

<sup>2</sup> Includes other assets.

<sup>3</sup> Includes other liabilities to shareholders.

<sup>4</sup> Includes other liabilities to the public.



### 3.—Assets and Liabilities of Trust Companies Chartered by or Supervised by the Federal Government, as at Dec. 31, 1938-47

NOTE.—Figures for the years 1914-24 appear at pp. 914-915 of the 1937 Year Book. Figures comparable to those shown below for the years 1925-37 are given at pp. 985-987 of the 1946 edition. The figures of this table include statistics of trust companies chartered by the following Provincial Governments but brought, in the stated years, under the inspection of the Federal Department of Insurance: Nova Scotia, 1925; New Brunswick, 1934; and Manitoba, 1938.

COMPANY FUNDS—ASSETS								
Year	Loans		Real Estate <sup>1</sup>	Government, Municipal, School and Other Securities Owned	Stocks	Cash on Hand and in Banks	All Other Assets Belonging to the Companies	Total Assets of the Companies
	On Real Estate	On Collateral (Securities)						
	\$	\$	\$	\$	\$	\$	\$	\$
1938.....	6,116,342	901,935	4,518,886	4,423,228	1,103,090	1,020,266	2,163,727	20,247,474
1939.....	6,269,736	816,795	4,421,183	4,402,444	1,180,163	1,025,731	2,060,366	20,176,418
1940.....	6,714,153	677,384	4,206,914	4,662,449	1,221,470	951,975	1,775,209	20,209,559
1941.....	6,783,918	554,609	3,952,899	5,253,427	1,344,463	1,143,134	1,564,326	20,596,781
1942.....	6,599,744	556,527	3,466,296	5,723,054	1,416,195	1,051,448	1,377,664	20,190,928
1943.....	6,467,018	413,860	3,033,478	6,636,500	1,687,295	1,152,881	1,178,755	20,569,787
1944.....	6,056,591	438,388	2,518,320	7,732,823	2,271,356	1,263,031	1,004,146	21,284,655
1945.....	5,455,703	629,592	1,828,272	9,741,423	2,558,221	1,318,143	943,670	22,475,024
1946.....	5,208,488	1,160,996	1,571,466	9,560,785	3,479,892	1,687,568	1,030,202	23,699,397
1947.....	4,703,905	706,629	1,644,909	9,703,279	3,606,580	1,724,039	1,332,516	23,421,857
GUARANTEED FUNDS—ASSETS								
Year	Loans		Government, Municipal, School, and Other Securities Owned	Stocks	Cash on Hand and in Banks	All Other Assets	Total Assets Held Against Guaranteed Funds	
	On Real Estate	On Collateral (Securities)						
	\$	\$	\$	\$	\$	\$	\$	
1938.....	21,452,863	4,025,109	9,573,096	—	1,353,753	611,322	37,016,143	
1939.....	21,235,726	2,277,963	10,731,590	—	1,219,212	536,509	36,001,000	
1940.....	20,325,502	2,122,552	10,907,161	—	1,618,430	508,554	35,482,199	
1941.....	19,467,940	2,282,042	12,878,023	—	3,462,842	480,008	38,570,855	
1942.....	18,746,799	2,082,970	14,799,546	—	1,714,675	499,783	37,843,773	
1943.....	17,077,122	2,631,787	18,821,725	326,037	2,166,930	480,590	41,504,191	
1944.....	16,710,530	3,483,691	23,978,699	332,430	2,772,583	463,997	47,741,930	
1945.....	16,836,677	3,926,532	28,823,159	340,099	2,751,837	471,274	53,149,578	
1946.....	20,193,684	6,091,690	32,063,319	712,104	2,632,067	491,239	62,184,103	
1947.....	26,448,775	4,631,540	34,772,852	1,478,014	3,755,198	574,065	71,660,444	
LIABILITIES								
Year	Company Funds					Guaranteed Funds		
	Liabilities to Shareholders				Liabilities to the Public	Total	Principal	Total
	Capital Paid Up	Reserve Funds	Other Liabilities	Total				
		\$	\$	\$	\$	\$	\$	\$
1938.....	11,949,775	5,946,939	584,149	18,480,863	974,982	19,455,845	37,016,143	37,016,143
1939.....	11,789,264	6,002,488	951,071	18,742,823	609,016	19,351,839	36,001,000	36,001,000
1940.....	11,867,224	5,902,904	1,044,205	18,814,333	706,849	19,521,182	35,482,198	35,482,198
1941.....	12,253,038	6,138,528	1,000,768	19,392,334	694,442	20,086,776	38,570,855	38,570,855
1942.....	12,128,931	5,570,759	983,088	18,682,778	581,153	19,263,931	37,843,773	37,843,773
1943.....	12,171,035	6,221,929	1,297,669	19,690,633	477,717	20,168,350	41,504,191	41,504,191
1944.....	12,311,457	7,037,955	1,219,898	20,569,310	507,288	21,076,598	47,741,929	47,741,929
1945.....	12,806,849	6,932,540	1,406,667	21,146,056	1,165,706	22,311,762	53,149,577	53,149,577
1946.....	13,666,595	7,396,948	1,399,378	22,462,921	876,866	23,339,787	62,184,103	62,184,103
1947.....	13,333,408	7,764,554	1,538,525	22,626,487	565,199	23,191,686	71,660,444	71,660,444

<sup>1</sup> Book value of real estate for company use and other real estate.

#### 4.—Amount of Estates, Trust, and Agency Funds of Trust Companies Chartered by or Supervised by the Federal Government, as at Dec. 31, 1938-47

NOTE.—Figures for the years 1914-24, are given at p. 915 of the 1937 Year Book; those for the years 1925-37 at p. 987 of the 1946 edition. Headnote to Table 3 applies also to the figures of this table.

Year	Estates, Trust, and Agency Funds	Year	Estates, Trust, and Agency Funds
	\$		\$
1938.....	236,467,735	1943.....	313,457,551
1939.....	242,369,850	1944.....	338,978,141
1940.....	256,781,691	1945.....	363,332,677
1941.....	268,596,524	1946.....	392,430,578
1942.....	290,630,617	1947.....	480,931,822

### Section 2.—Licensed Small Loans Companies and Licensed Money-Lenders

Four companies have been incorporated by the Parliament of Canada that make small loans, usually not exceeding \$500 each, on the promissory notes of the borrowers and additionally secured in most cases by endorsements or chattel mortgages. While these companies, under their original charter powers, were permitted to make loans on the security of real estate, that power was withdrawn by the Small Loans Act, 1939.

On Jan. 1, 1940, the Small Loans Act, 1939 (3 Geo. VI, c. 23), came into force, by which the above-mentioned small loans companies and money-lenders licensed thereunder, making personal loans of \$500 or less, are limited to a rate of cost of loan not in excess of 2 p.c. per month on outstanding balances, and unlicensed lenders to a rate of 12 p.c. per annum, including interest and charges of every description.

#### 5.—Assets and Liabilities of Small Loans Companies Chartered by the Federal Government, as at Dec. 31, 1938-47

NOTE.—Figures for the years 1928-32 will be found at p. 833 of the 1942 Year Book and for the years 1933-37 at p. 988 of the 1946 edition.

Year	ASSETS			
	Loans Receivable	Cash on Hand and in Banks	Other	Total
	\$	\$	\$	\$
1938.....	4,764,032	412,594	32,182	5,208,808
1939.....	5,081,320	342,578	42,781	5,466,679
1940 <sup>1</sup> .....	6,266,336 <sup>2</sup>	381,061	181,806	6,829,203
1941.....	7,557,414	269,943	91,569	7,918,926
1942.....	8,485,590	246,629	328,043 <sup>3</sup>	9,060,262
1943.....	9,768,506	412,429	415,431 <sup>4</sup>	10,596,366
1944.....	11,548,308	542,359	507,179 <sup>4</sup>	12,597,846
1945.....	13,354,915	734,583	1,911,332 <sup>5</sup>	16,000,830
1946.....	20,307,530	377,813	4,232,126 <sup>6</sup>	24,917,469
1947.....	24,425,312	1,073,419	7,144,612 <sup>7</sup>	32,643,343

For footnotes, see end of table, p. 1088.

**5.—Assets and Liabilities of Small Loans Companies Chartered by the Federal Government, as at Dec. 31, 1938-47—concluded**

Year	LIABILITIES									
	Liabilities to Shareholders					Liabilities to the Public				Total Liabilities
	General Reserve	Reserve for Losses	Capital Paid Up	Other Liabilities	Total	Borrowed Money	Un-earned Income	Other Liabilities <sup>a</sup>	Total	
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
1938..	318,000	295,361	1,001,750	441,718	2,056,829	2,653,334	348,355	118,108	3,119,797	5,176,626
1939..	318,000	351,850	1,234,250	749,666	2,653,766	2,265,834	369,723	134,724	2,770,281	5,424,047
1940..	18,000	421,488	1,234,250	1,233,841	2,907,579	3,708,366	"	213,258	3,921,624	6,829,203
1941..	18,000	517,989 <sup>1</sup>	1,234,250	1,590,941	3,361,177	4,258,853	"	298,896	4,557,749	7,918,926
1942..	18,000	576,589 <sup>1</sup>	3,734,250	1,920,499	6,249,338	2,572,615	"	238,309	2,810,924	9,060,262
1943..	18,000	565,110 <sup>1</sup>	3,735,000	2,393,312	6,711,422	3,570,695	"	314,249	3,884,944	10,596,366
1944..	18,000	579,270 <sup>1</sup>	3,805,000	2,970,071	7,372,341	4,819,254	"	406,251	5,225,505	12,597,846
1945..	18,000	586,428 <sup>1</sup>	3,965,000	4,083,179	8,652,607	7,077,840	"	270,383	7,348,223	16,000,830
1946..	18,000	915,290 <sup>1</sup>	4,155,000	4,560,862	9,649,152	15,007,689	"	260,629	15,268,318	24,917,469
1947..	18,000	1,122,974 <sup>1</sup>	4,555,000	4,428,560	10,124,534	22,003,002	"	510,292	22,513,294	32,643,343 <sup>11</sup>

<sup>1</sup> First year Small Loans Act in operation. <sup>2</sup> Not including balances other than small loans.  
<sup>3</sup> Includes \$200,000 bonds, debentures and stock. <sup>4</sup> Includes \$250,000 bonds. <sup>5</sup> Includes \$250,000 bonds and \$1,534,756 balances of loans made in amounts greater than \$500. <sup>6</sup> Includes \$4,046,210 balances of loans in amounts greater than \$500. <sup>7</sup> Includes \$6,762,669 balances of loans in amounts greater than \$500. <sup>8</sup> Includes taxes. <sup>9</sup> No unearned income, since from 1940 small loans have been on an earned basis. <sup>10</sup> Includes business other than small loans. <sup>11</sup> Includes \$5,515 premium on capital stock.

The small loans companies chartered by the Federal Government show a substantial increase in business for 1947 as compared with the previous year. The number of loans made to the public during the year increased from 245,887 to 294,602 or by 20 p.c. and the amount of such loans rose from \$40,188,730 to \$50,761,348. The average loan was approximately \$172 compared with \$163 in 1946. At the end of 1947, the loans outstanding were 190,068 to an amount of \$24,425,311 or an average of \$129 per loan.

**Licensed Money-Lenders.**—In addition to the above-mentioned small loans companies, 55 licensed money-lenders furnished annual statements of their business, showing, for 1947, total assets of \$28,111,238, of which balances of small loans amounted to \$12,411,187, other balances to \$12,747,649, bonds, debentures and stocks to \$284,239, real estate to \$44,381, cash to \$1,094,356, and other assets to \$1,529,426. Liabilities amounted to \$28,111,238, of which borrowed money accounted for \$21,383,989 and paid shares and partnership capital for \$3,796,091. Loans made in 1947 numbered 128,286, totalling \$23,282,833 and averaging almost \$181, an increase of 21 p.c. in number and 28 p.c. in the gross amount; at the end of the year there were 92,304 loans outstanding with a total of \$12,411,187 averaging \$134. About 39 p.c. of the loans made in 1947 were between \$100 and \$200. Further details of this type of business are given in the 1947 report "Small Loans Companies and Money-Lenders Licensed under The Small Loans Act, 1939" published by the Federal Department of Insurance.

### Section 3.—The Underwriting and Distribution of Investments: their Influence on the Capital Market\*

**Introduction.**—This Section deals, in general, with the development of the capital market in Canada and, in particular, with that phase having to do with government, municipal and corporation securities which are or may be publicly dealt in or traded. Such government, municipal and corporation securities are

\* Prepared in co-operation with the Investment Dealers Association of Canada.



referred to in this Section as public investments as contrasted with private investments, viz., those securities held privately by individuals or corporations in most cases as a means of company control and which are not generally recognized as securities available for public trading.

The growth of the Canadian capital market has been one of gradual evolution. Prior to 1900 there was no such thing as a domestic capital market in Canada. The development of the country in its earlier years was dependent almost entirely on foreign capital, chiefly from the United Kingdom. The popular investments for Canadians, apart from the individual's own business, were something of a tangible nature like real estate or a mortgage secured by real estate, or a deposit in some financial institution. It required the expansion of government activities as well as the growth of joint-stock companies to initiate the development of a domestic capital market. While no figure is available of the total amount of invested capital in Canada at the beginning of the century, it has been privately estimated that the amount of foreign capital investment in Canada, at that time, was about \$1,200,000,000 made up of government, municipal and railway and public utility bonds and the shares of a limited number of companies such as the Canadian Pacific Railway and some lending and banking institutions.

The period from 1900 to 1913 was one of very rapid development in Canada and foreign capital poured in to a total of approximately \$2,500,000,000 during these years, more than one-half of it from the United Kingdom. London was then the capital market of the world and British investment houses had acquired long experience with foreign borrowers. True, there existed in Canada a number of investment houses, principally brokerage houses, members of the Toronto Stock Exchange founded in 1852 or the Montreal Stock Exchange founded in 1863, but the activities of these brokers were mainly concerned with trading in the listed securities of relatively few companies. These were principally loan companies and certain utility companies such as the Consumers Gas Company of Toronto, but their function did not extend to the seeking of new capital. Although in the 1890's Canadian stock-brokers and investment dealers underwrote the new security issues of a few Canadian companies, the underwriting of securities for government and corporate purposes on any large scale by Canadian brokers or investment dealers remained, for the most part, in the future.

As already stated, prior to the First World War Canadian savings were relatively small in volume and were invested chiefly in real estate and mortgages or left on deposit with banks. In turn these bank deposits were used mostly to make commercial loans, only a small proportion being invested in securities largely because there were few Canadian securities outstanding or available. With the outbreak of war in 1914, Canada was automatically shut off from the British market and turned to New York to finance war requirements. By 1916, 65 p.c. of all Canadian new-issue flotations were being placed in the United States. When the United States entered the War in 1917, this market was also closed to Canada. The necessity of being forced to rely on Canadian resources, plus the Government's decision to organize and conduct Victory Loan campaigns, proved to be a tremendous stimulus to the development of the domestic bond market. Bond sales had, up to this time, been confined to financial institutions and to wealthy individuals. However, the great increase in production and income (and thus in the capacity to save) which took place in Canada prior to and during the War made possible the success of the first Victory Loans. Victory Loan campaigns were organized to make Canadians

'bond conscious' and to persuade them to lend their savings to the nation. These campaigns, aided by the high interest rates (5 p.c. and  $5\frac{1}{2}$  p.c.) brought remarkable success. In 1915, 24,862 persons subscribed for \$78,729,000 of the first domestic War Loan issue. In the campaign of October, 1918, over 1,000,000 persons subscribed more than \$695,000,000.

Following the First World War, the investment boom of the 1920's in Canada was financed to a much greater extent out of Canadian savings than had been the case in any earlier period. Although investments of non-resident capital continued to be important there was a growing volume of Canadian capital available for investment. Much of this capital was invested in Canadian bonds, the sale of which in Canada rose substantially. Part of this Canadian capital was invested in foreign securities. Both Canadian individuals and institutions participated in this form of investment and in certain periods during the decade there were even net outward movements of capital from Canada. But the period from 1920 to 1930 as a whole was still one of predominantly inward movements of capital to Canada. An indication of the contribution of foreign capital to Canadian development in the decade is afforded by the value of non-resident investments in Canada in 1930 which reached an all-time peak of \$7,614,000,000 according to Dominion Bureau of Statistics data. This total was about \$3,000,000,000 higher than the value of non-resident investments in Canada at the end of 1919, which has been estimated at \$4,637,000,000. Almost all this growth in non-resident capital was in investments owned in the United States. Particularly important were developments financed by United States capital such as hydro-electric power, the pulp and paper industry, the automobile industry, and other industries being directly developed by United States companies. While statistics on the total value of all investments in Canada during the decade are not complete, available data covering part of the period indicate that capital of Canadian origin was very substantial in the decade as a whole.

The steady development of the Canadian capital market was seriously interrupted only from 1932 to 1934. From then until 1939 a continual flow of new bond and share financing was undertaken, much of which was of a reorganization and refinancing nature. With the outbreak of the Second World War it was obvious that Canada's financing of its war requirements must of necessity be done at home. The years 1939-45 witnessed the sharpest increase in the amount of Canadian Government financing in the history of Canada.

An important aspect of the expansion in Canadian investments in public securities has been the growing volume of Canadian bonds which are owned by residents of Canada. This is illustrated by the changes in the distribution of holdings of Canadian bonds between 1936 and 1947, shown in Tables 7 and 8. The par value of Canadian holdings rose during the decade from \$6,690,000,000 in 1936 to \$18,678,000,000 in 1947. In 1936, 66 p.c. of the total funded debt of Canadian governments and corporations was estimated as owned in Canada. In 1947 the corresponding proportion had expanded to about 87 p.c., chiefly because of the great expansion in issues of the Canadian Government arising out of the sale of Victory Loans in Canada during the recent war. The treatment of "Canada's International Investment Position" at pp. 390-394 gives a summary of non-resident investments in Canada, and British and foreign capital investments to which reference should be made.

The Bank of Canada now publishes an annual series of net new stock issues (i.e., new issues combined with retirements) in its Annual Report.

**Security Distribution.**—The substantial growth in the public investment market is, therefore, apparent. Some statistical evidence is also available to indicate that in this growth, wide distribution of security holdings has taken place. The outlets for this public investment capital have not been confined to any one type of investor as there has been a consistent increase in the holdings of this capital by both institutional and private investors. Table 6 illustrates in part the nature of this distribution.

**6.—Ownership of Government of Canada Bonds, as at Dec. 31, for Specified Years, 1938-48**

(Millions of Dollars)

Bond Holdings	1938	1940	1942	1944	1946	1947	1948
Holdings of—							
All Government of Canada accounts.....	96	86	201	715	903	1,076	1,148
Bank of Canada and chartered banks.....	753	737	1,180	2,277	3,745	3,718	3,834
General public.....	3,282	3,563	5,166	8,684	10,598	10,192	9,736
Life insurance companies.....	622	626	994	1,655	2,183	2,198	2,165
All other.....	2,760	2,937	4,338	7,300	8,415	7,994	7,571
Deduct Victory Loan advances <sup>1</sup> .....	—	—	—166	—271	—	—	—
<b>Totals, Holdings of Bonds.....</b>	<b>4,131</b>	<b>4,386</b>	<b>6,547</b>	<b>11,676</b>	<b>15,246</b>	<b>14,986</b>	<b>14,718</b>

<sup>1</sup> Temporary advances to the public by chartered banks in connection with the purchase of Victory Loan bonds at time of issue.

The experience resulting from offerings to the public of War Loans and Victory Loans in both World Wars is indicated in the following statements:—

**I.—CANADA'S DOMESTIC WAR LOANS, 1915-19**

War Loans	Date of Issue	Objective	Amount Subscribed	Subscriptions
		\$'000,000	\$'000,000	No.
1st Loan.....	Nov. 1915	50	79	25,000
2nd Loan.....	Sept. 1916	100	145	35,000
3rd Loan.....	Mar. 1917	150	183	41,000
4th Loan.....	Nov. 1917	150	413	809,000
5th Loan.....	Oct. 1918	300	695	1,140,000
6th Loan.....	Oct. 1919	300	673	795,000
<b>TOTALS.....</b>		<b>1,050</b>	<b>2,188</b>	

**II.—CANADA'S DOMESTIC WAR LOANS AND VICTORY LOANS, 1940-45**

War and Victory Loans	Date of Issue	Objective	Amount Subscribed	Subscriptions
		\$'000,000	\$'000,000	No.
1st War Loan.....	Jan. 1940	200	200	178,000
2nd War Loan.....	Sept. 1940	300	300	151,000
1st Victory Loan.....	June 1941	600	730	968,000
2nd Victory Loan.....	Feb. 1942	600	843	1,681,000
3rd Victory Loan.....	Oct. 1942	750	991	2,032,000
4th Victory Loan.....	Apr. 1943	1,100	1,309	2,668,000
5th Victory Loan.....	Oct. 1943	1,200	1,375	3,033,000
6th Victory Loan.....	Apr. 1944	1,200	1,405	3,077,000
7th Victory Loan.....	Oct. 1944	1,300	1,512	3,327,000
8th Victory Loan.....	Apr. 1945	1,350	1,564	3,178,000
9th Victory Loan.....	Oct. 1945	1,500	2,022	2,948,000
<b>TOTALS.....</b>		<b>10,100</b>	<b>12,251</b>	



In addition to the sales of Victory Loans in the Second World War, War Savings Certificates were issued to a total amount of about \$389,000,000 and Canada Savings Bonds to the amount of \$1,083,000,000 were sold to the public.

Although complete statistics of preferred and common stock holdings are not available, an examination of the shareholders' lists of a number of the older and more prominent Canadian companies seems to indicate a wider distribution among shareholders at the present time as compared to the earlier period. For instance, there were 55,371 shareholders of the chartered banks in 1949—in 1930 there were 46,712. In the case of the Bell Telephone Company there were 52,500 shareholders in 1949—nearly double the number in 1945—while in 1935 Bell Telephone had approximately only 20,000 shareholders.

**Channels of Distribution.**—A wide variety of organizations and institutions has developed which provide the channels of distribution for publicly traded bonds and stocks. The chartered banks, the insurance, trust and loan companies, the stock-brokers and the investment dealers have all played their part in the development of the capital market, although the functions of these differ widely. The chartered bank's function is primarily one of making commercial loans; insurance, trust and loan companies have their particular functions, but all are substantial holders of securities and as such have played an important part in developing the public capital investment market. The stock-broker's function is essentially one of trading outstanding securities for a widening clientele. The function of the investment dealer is to:—

- (a) procure new capital as required for government and industry;
- (b) carry on day-to-day trading of all types of publicly held securities, in which function he acts as a principal as contrasted to the stock-broker who operates on an agency basis.

Each of these various categories has its own organization. Throughout all the spirited growth of the capital market the investment dealer gradually developed his retail business. While, at first, he confined his activities largely to government and municipal bonds, with the expansion in business he was able to extend his operations to include the underwriting of new issues on behalf of governments, municipalities and companies engaged in public utility operations, manufacturing and transportation. It was the investment dealer to whom the Government turned during the First World War and again during the Second World War to provide the nucleus for the development of the broad and expansive organization required at those times to float the large volume of Canadian Government bonds then issued.

As conditions throughout Canada vary, there exist a number of local and, in some cases, provincial organizations of brokers or dealers which, while serving the particular purposes for which they were formed, distribute both new issues and outstanding securities. There is only one national organization of investment dealers, formed in 1916 as the Bond Dealers Association of Canada. Renamed in 1935 the Investment Dealers Association of Canada, this organization has, as its chief objective, the general welfare of investment dealers and investors interested in government, municipal and corporation securities, as well as providing mutual protection, both to the dealer and the investor, against any irregular or illegal activities that may affect either. Membership in the Association is confined to

established firms of good reputation in the financial business. These firms must conform to certain regulations or by-laws relating to annual audits, and submission of statements on certain phases of their operation for the protection of investors. While it is national in scope, the better to accomplish its purposes on a sectional basis, regional committees have been formed which are responsible to the Association as a whole.

### 7.—Estimated Distribution of Ownership of Funded Debt of Canadian Governments and Corporations at Dec. 31, 1936

(Millions of Dollars)

Item	Amounts Outstanding	Distribution of Ownership			
		Canada	United Kingdom	United States	Other Countries <sup>1</sup>
Funded Debt—					
Dominions—direct and indirect, excluding railways.....	3,413	2,607	319	487	—
Provincials—direct and indirect, excluding railways.....	1,846	1,327	68	448	3
Municipals.....	1,467	1,103	133	226	—
Totals, Government Bonds.....	6,726	5,037	525	1,161	3
Steam railways <sup>2</sup> .....	1,840	673	740	427	—
Other corporations <sup>2</sup> .....	1,597	980	134	469	14
<b>Totals, Funded Debt.....</b>	<b>10,163</b>	<b>6,690</b>	<b>1,399</b>	<b>2,057</b>	<b>17</b>

<sup>1</sup> Some bonds sold through London and credited to the United Kingdom were doubtless taken in other European countries. No information is available as to the amounts but these represent only a small percentage. <sup>2</sup> The amounts for corporations and for railways include the bonded indebtedness of direct investments as follows: United Kingdom \$53,700,000, United States \$288,500,000 and other countries \$9,900,000.

### 8.—Estimated Distribution of Ownership of Funded Debt of Canadian Governments and Corporations at Dec. 31, 1947

(Millions of Dollars)

Item	Amounts Outstanding <sup>1</sup>	Distribution of Ownership			
		Canada	United Kingdom	United States	Other Countries <sup>2</sup>
Funded Debt—					
Dominions—direct and indirect, excluding railways.....	16,197	15,484	—	665	48
Provincials—direct and indirect, excluding railways.....	1,729	1,178	35	515	1
Municipals.....	865	601	55	207	2
Totals, Government Bonds.....	18,791	17,263	90	1,387	51
Steam railways.....	1,060	258	316	453	33
Other corporations.....	1,643	1,157	85	374	27
<b>Totals, Funded Debt.....</b>	<b>21,494</b>	<b>18,678</b>	<b>491</b>	<b>2,214</b>	<b>111</b>

<sup>1</sup> Amounts outstanding exclude sinking funds, and in some cases are estimated. The total for other corporations excludes some domestic issues held in Canada. <sup>2</sup> Some securities shown as held in the United States and United Kingdom are beneficially owned in other countries.

## 9.—Estimated Net New Issues or Net Retirements, 1936-48

(Par Values in Millions of Canadian Dollars)

NOTE.—Estimated net retirements in this table are shown in italics.

	Year	Government of Canada		Provincial Bonds	Municipal Bonds	Private Corporation		Total
		Bonds <sup>1</sup> Including CNR	Banking Issues <sup>2</sup>			Bonds	Stocks <sup>3</sup>	
Payable in Canada only.	1936	170	12	66	13	182	44	461
	1937	25	—	82	9	75	32	205
	1938	91	5	59	9	31	9	186
	1939	74	200	51	24	96	14	411
	1940	444	315	75	14	22	5	803
	1941	730	290	—	32	33	—	955
	1942	1,830	633	7	47	11	3	2,409
	1943	2,676	535	7	40	26	—	3,152
	1944	2,847	248	39	17	18	—	3,021
	1945	3,769	695	14	34	54	25	3,105
	1946	272	250	18	3	133	75	251
	1947	212	346	130 <sup>4, 5</sup>	99 <sup>5</sup>	274	123 <sup>4</sup>	68
	1948	444	100	226	63	202	45	192
Payable abroad only or optionally.	1936	39	—	27	14	141	—	221
	1937	14	—	24	16	87	—	141
	1938	21	—	11	21	42	—	96
	1939	96	—	29	15	129	—	211
	1940	144	—	15	16	35	—	210
	1941	193	—	18	14	31	—	256
	1942	292	—	41	14	64	—	411
	1943	148	—	25	13	36	—	222
	1944	68	—	27	10	20	—	125
	1945	46	—	14	9	54	—	123
	1946	154	—	36	8	134	8	340
	1947	31	—	65	71	153	13	333
	1948	149	—	38	11	7	—	93
Totals.....	1936	131	12	39	27	41	44	240
	1937	11	—	58	25	12	32	64
	1938	70	5	48	30	11	9	91
	1939	22	200	80	39	33	14	200
	1940	300	315	60	30	57	5	593
	1941	537	290	18	46	64	—	699
	1942	1,538	633	34	61	75	3	1,998
	1943	2,528	535	18	53	62	—	2,930
	1944	2,779	248	66	27	38	—	2,896
	1945	3,723	695	28	43	—	25	2,982
	1946	118	250	18	5	1	67	89
	1947	243	346	65 <sup>4, 5</sup>	28 <sup>5</sup>	121	110 <sup>4</sup>	265
	1948	295	100	188	52	195	45	285

<sup>1</sup> Includes refundable taxes of 70, 155, 219, 70, 27 and 85 in the years 1943 to 1948, respectively.<sup>2</sup> Treasury bills, deposit certificates, treasury notes and other short-term issues sold directly to banks.<sup>3</sup> At selling and retirement values rather than par.<sup>4</sup> Before giving effect to the issue of Quebec Hydro bonds and the retirement of Montreal Light, Heat and Power stock, each in the amount of \$112,000,000.<sup>5</sup> Before giving effect to the issue of \$63,000,000 of provincially guaranteed Quebec Municipal Commission bonds and the transfer to the Commission of the debt of certain school corporations.



## 10.—Sales of Canadian Bonds, by Class of Bond and Country of Sale, 1938-47

NOTE.—Figures for the years 1904-25, inclusive, are given at p. 921 of the 1933 Year Book and for 1927-37 at pp. 990-991 of the 1946 edition. Since 1936 much of the borrowing for the Canadian National Railways has been done directly by the Federal Government which since the War has advanced money to both the Canadian National and Canadian Pacific Railways for the purchase of equipment. For this reason such small bond issues as have been made by the Canadian Pacific Railway are included under "Corporation".

Year	CLASS OF BOND					
	Federal <sup>1</sup>	Provincial	Municipal	Parochial and Miscellaneous	Corporation	Total
	\$	\$	\$	\$	\$	\$
1938.....	283,491,667	118,792,000	35,154,344	..	75,442,500	512,880,511
1939.....	404,585,000	154,059,900	26,897,689	..	242,708,600	828,251,189
1940.....	1,180,642,200	168,820,000	25,211,093	..	25,777,000	1,400,450,293
1941.....	1,036,820,250	69,736,000	15,378,095	..	16,081,000	1,138,015,345
1942.....	2,431,074,400	96,860,000	23,563,905	..	13,988,350	2,565,486,655
1943.....	3,670,028,200	97,632,000	14,228,936	20,406,300	53,055,500	3,855,350,986
1944.....	3,400,963,900	67,153,500	113,225,635	10,612,100	92,063,900	3,684,019,035
1945.....	3,577,691,000	162,002,084	30,430,210	10,952,500	153,900,000	3,934,975,794
1946.....	422,223,850	114,296,800	140,815,491	43,155,800	581,499,188	1,301,991,129
1947.....	272,975,850	229,562,000	238,887,410	14,968,600	379,674,500	1,136,068,360

Year	DISTRIBUTION OF SALES, BY COUNTRIES			
	Sold in Canada	Sold in United States	Sold in United Kingdom	Total
	\$	\$	\$	\$
1938.....	424,038,844	40,175,000	48,666,667	512,880,511
1939.....	696,651,189	127,500,000	100,000	828,251,189 <sup>2</sup>
1940.....	1,400,075,293	375,000	—	1,400,450,293
1941.....	1,127,349,345	10,666,000	—	1,138,015,345
1942.....	2,549,748,655	15,738,000	—	2,565,486,655
1943.....	3,729,229,986	126,121,000	—	3,855,350,986
1944.....	3,629,004,035	55,015,000 <sup>3</sup>	—	3,684,019,035
1945.....	3,854,957,794	80,018,000	—	3,934,975,794
1946.....	1,238,339,129	63,652,000	—	1,301,991,129
1947.....	1,047,757,360	88,311,000	—	1,136,068,360

<sup>1</sup> Not including treasury bills, deposit certificates, and other financing for less than a term of one year.

<sup>2</sup> Includes \$4,000,000 distributed elsewhere.

<sup>3</sup> Excluding bonds purchased by Canadian dealers and

later sold in the United States.

# CHAPTER XXVI.—INSURANCE\*

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Insurance, for the purpose of statistical analysis, is usually classified as fire, life and casualty. Most companies operate under Federal Government (Dominion) registration although some have provincial licences only. Many fraternal orders and societies, too, are engaged in this kind of business. An extended treatment of the salient features of the legislation covering insurance in general and the fields of federal and provincial jurisdiction will be found in the 1941 Year Book at pp. 844-846. The 1942 Year Book, at pp. 842-846, contains a special article on the developments in fire and casualty insurance in Canada between 1931 and 1940, consequent upon the enactment of the three Insurance Acts of 1932, while an article on insurance as it affects the balance of international payments appears at pp. 870-871 of the same edition. The 1947 Year Book, at pp. 1064-1074, includes an article on insurance in Canada during the depression and war periods.

## Section 1.—Fire Insurance

In Canada, fire insurance began with the establishment of agencies by British fire insurance companies. These were situated usually at the seaports and operated by local merchants. The oldest existing agency of such a company commenced business at Montreal in 1804. The first Canadian company dates from 1809 and the first United States company to operate in Canada commenced business in 1821. A short account of the inception of fire insurance in Canada is given at pp. 846-847 of the 1941 Year Book.

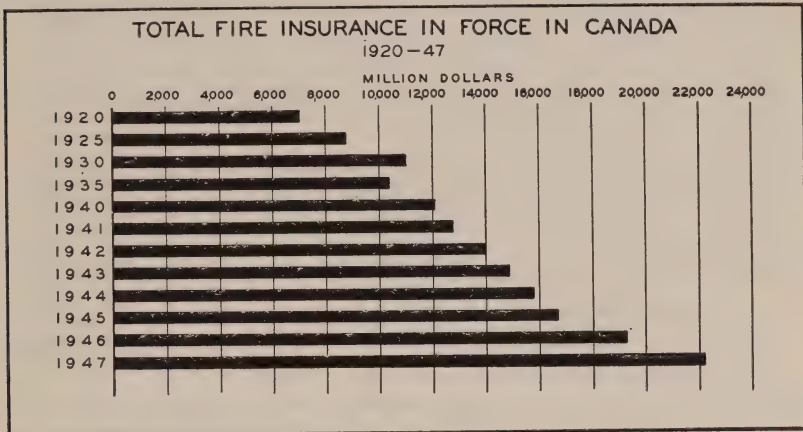
The report of the Superintendent of Insurance for the year ended Dec. 31, 1947, shows that at that date there were 268 fire insurance companies under Dominion registration; of these, 59 were Canadian, 73 were British, and 136 were foreign companies. In 1875, the first year for which authentic records were collected by the Department of Insurance, 27 companies operated in Canada—11 Canadian, 13 British and 3 United States. The proportionate increase in the number of British and foreign companies from 59 p.c. to 78 p.c. of the total number is a very marked point of difference between the fire and life insurance businesses in Canada, the latter being carried on very largely by Canadian companies.

\* Material in this Chapter, except where otherwise indicated, has been revised under the direction of R. W. Warwick, Superintendent of Insurance, Department of Insurance, Ottawa.

### Subsection 1.—Grand Total of Fire Insurance in Canada

Of the total amount of insurance effected in Canada during each year, a part is sold by the companies holding provincial licences and permits. Such companies generally confine their operations to the province of incorporation, but may be allowed to sell insurance in other provinces.

In the more detailed analyses of fire insurance given in Table 2, the statistics cover only the operations of companies with Dominion registration; as shown in Table 1, such companies account for approximately 90 p.c. of the insurance in force.



1.—Fire Insurance in Canada, 1947

Item	Gross Insurance Written	Net in Force at End of Year	Net Premiums Written	Net Claims Incurred
	\$	\$	\$	\$
Dominion Licensees.....	22,148,561,127	19,926,683,282	86,774,952	39,513,014
Provincial Licensees—				
(a) Provincial companies within provinces by which they are incorporated.....	1,199,630,347	1,784,810,851	7,368,416	3,588,855
(b) Provincial companies within provinces other than those by which they are incorporated.....	179,572,110	184,941,077	1,119,350	592,493
Totals, Provincial Licensees.....	1,379,202,457	1,969,751,928	8,487,766	4,181,348
Lloyds, London.....	370,728,113	365,249,291	2,739,942	1,388,434
<b>Grand Totals.....</b>	<b>23,898,491,697</b>	<b>22,261,684,501</b>	<b>98,002,660</b>	<b>45,082,796</b>

### Subsection 2.—Operational Statistics of Fire Insurance Companies Registered by the Federal Government

The trend in the average rate payable for fire insurance has been generally downward, although the increases in fire losses in the years from 1941 to 1946 have had the effect of checking that tendency. The increase in value of insurable buildings and their contents tends to increase fire insurance premiums in spite of the trend of the average rate.



## 2.—Fire Insurance, by Companies Operating under Dominion Registration, Decennially 1880-1940 and 1941-48

NOTE.—Figures for the years 1889-99 are given at p. 973 of the 1939 Year Book, and figures for 1901-39 at p. 847 of the 1942 edition.

Year	Amount in Force at End of Year	Net Premiums Received During Year	Claims Paid During Year	Percent- age of Claims to Pre- miums	Gross Amount of Risks Taken During Year	Premiums Charged Thereon	Average Cost per \$100 of Insurance
	\$	\$	\$	p. c.	\$	\$	\$
1880.....	411,563,271	3,479,577	1,666,578	47-90	384,051,861	3,958,437	1-03
1890.....	720,679,621	5,836,071	3,266,567	55-97	620,723,945	7,019,319	1-13
1900.....	992,332,360	8,331,948	7,774,293	93-31	803,428,654	10,031,735	1-25
1910.....	2,034,276,740	18,725,531	10,292,393	54-96	1,817,055,685	24,684,296	1-36
1920.....	5,989,872,278	50,527,937	21,935,387	43-41	6,790,670,610	71,143,917	1-05
1930.....	9,672,996,973	52,646,520 <sup>1</sup>	30,427,968 <sup>2</sup>	57-71	10,311,193,608	82,700,147	0-80
1940.....	10,737,568,226	41,922,312 <sup>1</sup>	15,444,927 <sup>2</sup>	36-84	12,072,174,014	72,682,679	0-60
1941.....	11,386,819,286	49,305,539 <sup>1</sup>	17,814,322 <sup>2</sup>	36-13	13,345,610,185	85,877,389	0-64
1942.....	12,565,212,694	47,272,440 <sup>1</sup>	20,360,534 <sup>2</sup>	43-07	12,759,419,939	84,168,663	0-66
1943.....	13,386,782,873	47,153,094 <sup>1</sup>	22,181,244 <sup>2</sup>	47-04	12,838,807,204	84,047,821	0-65
1944.....	14,174,130,630	55,027,051 <sup>1</sup>	28,921,930 <sup>2</sup>	52-56	14,572,876,024	96,065,279	0-66
1945.....	15,054,848,612	58,335,728 <sup>1</sup>	30,585,357 <sup>2</sup>	52-43	10,096,447,893 <sup>3</sup>	72,872,125	0-72
1946.....	17,376,429,865	68,825,470 <sup>1</sup>	35,379,627 <sup>2</sup>	51-40	11,744,234,245 <sup>3</sup>	82,696,662	0-70
1947.....	19,926,683,282	86,774,952 <sup>1</sup>	39,513,014 <sup>2</sup>	45-54	15,452,832,219 <sup>3</sup>	106,427,978	0-69
1948.....	23,021,215,478	98,191,514 <sup>1</sup>	45,143,565 <sup>2</sup>	45-98	16,986,228,866 <sup>3</sup>	119,222,396	0-70

<sup>1</sup> Net premiums written. <sup>2</sup> Net claims incurred. <sup>3</sup> Not comparable with 1944 and previous years since this figure indicates "Gross direct written", disregarding all reinsurance, assumed or ceded.

**Premiums Written and Claims Incurred.**—The relationship of claims incurred to premiums written is shown for Dominion registered companies by provinces in Table 3.

## 3.—Net Premiums Written and Net Claims Incurred in Canada by Canadian, British and Foreign Companies Operating under Dominion Registration, by Provinces, 1946 and 1947.

(Registered reinsurance deducted)

Year and Province	Canadian		British		Foreign	
	Premiums	Claims	Premiums	Claims	Premiums	Claims
	\$	\$	\$	\$	\$	\$
<b>1946</b>						
Prince Edward Island.....	87,435	126,890	205,584	459,706	104,973	234,862
Nova Scotia.....	750,702	306,006	1,258,336	478,976	1,045,801	408,832
New Brunswick.....	498,296	203,347	1,279,424	583,151	1,129,822	562,497
Quebec.....	4,085,328	2,343,066	7,174,339	4,729,491	9,658,412	5,050,814
Ontario.....	6,300,202	3,087,644	7,772,317	4,664,590	10,560,095	5,431,892
Manitoba.....	1,478,377	718,910	996,014	530,227	1,221,025	600,266
Saskatchewan.....	1,254,060	561,798	648,908	284,947	1,255,339	608,581
Alberta.....	1,214,456	526,004	1,105,716	497,049	1,758,195	993,453
British Columbia.....	1,359,878	373,623	2,714,065	878,510	3,176,976	883,353
All other Canada <sup>1</sup> .....	17,298	3,427	128,910	38,614	—4,677	9,717
<b>Canada, 1946.....</b>	<b>17,046,032</b>	<b>8,250,715</b>	<b>23,283,613</b>	<b>13,145,261</b>	<b>29,905,961</b>	<b>14,784,267</b>
<b>1947</b>						
Prince Edward Island.....	97,537	32,419	237,954	126,009	124,227	93,091
Nova Scotia.....	936,082	431,413	1,676,664	990,979	1,214,814	753,994
New Brunswick.....	616,412	203,068	1,518,531	662,508	1,195,922	886,985
Quebec.....	4,998,440	2,147,793	9,508,357	4,525,062	11,658,743	5,807,925
Ontario.....	7,816,133	3,228,241	11,065,145	5,246,076	13,406,341	6,458,244
Manitoba.....	1,719,149	674,141	1,294,795	485,050	1,611,716	805,893
Saskatchewan.....	1,469,401	507,934	734,456	208,772	1,450,494	458,174
Alberta.....	1,548,371	655,341	1,358,789	599,266	2,101,676	1,094,406
British Columbia.....	1,833,639	602,036	3,563,342	1,238,076	4,107,965	1,398,959
All other Canada <sup>1</sup> .....	12,857	6,268	199,768	54,150	—5,540	27,313
<b>Canada, 1947.....</b>	<b>21,048,021</b>	<b>8,488,654</b>	<b>31,157,831</b>	<b>14,135,948</b>	<b>36,866,358</b>	<b>17,785,084</b>

<sup>1</sup> Yukon, Northwest Territories and also certain 'floater business' that cannot be apportioned to any one province.

**Classification of Fire Risks.**—For some years the Department of Insurance has compiled, from information supplied by the fire insurance companies registered to transact business in Canada, tables of experience as to premiums and claims by 27 classes of risks agreed upon on the basis of net premiums written, less registered or licensed reinsurance. This experience for the five years 1940-44 is given at p. 1077 of the 1947 Year Book. For 1945 and 1946 the returns were received on a 'direct written' basis, excluding all reinsurance ceded or assumed, and the classification was changed and reduced to 21 classes. The 1946 and 1947 experience is given in Table 4.

**4.—Percentages of Claims Incurred to Premiums Written in Canada by All Companies Operating under Dominion Registration, by Classes of Risks, 1946 and 1947**

(Excluding all reinsurance ceded or assumed)

Class	1946	1947	Class	1946	1947
	p.c.	p.c.		p.c.	p.c.
Dwellings, excluding farms—			Saw and shingle mills.....	66-00	57-69
Protected brick.....	44-82	56-66	Lumber yards, pulpwood, stand-		
Protected frame.....	39-43	36-91	ing timber.....	46-99	38-45
Unprotected.....	36-41	34-99	Wood-working plants.....	71-06	72-01
Farm buildings.....	44-03	42-49	Metal-working plants, garages,		
Churches, public buildings, educa-			hangars.....	59-40	66-07
tional and social service insti-			Mining risks.....	40-16	49-77
tutions.....	102-94	53-85	Railway and public utility risks...	54-17	37-06
Warehouses.....	66-55	63-40	Miscellaneous manufacturing risks	88-69	92-76
Retail stores, office buildings,			Miscellaneous non-manufacturing		
banks, hotels.....	55-04	49-30	risks.....	55-85	41-62
Contents of above item.....	49-52	50-37	Sprinklered risks of whatever		
Foods, food and beverage plants...	75-60	62-36	nature or occupancy.....	32-42	25-75
Flour and cereal mills, grain ele-			Use and occupancy and profits,		
vators.....	104-81	51-66	excluding rental insurance.....	41-06	32-31
Oil risks of all kinds.....	89-73	26-83			
			<b>Averages</b> .....	<b>51-78</b>	<b>46-02</b>

**Subsection 3.—Finances of Fire Insurance Companies**

Tables 5 to 7 show for recent years the assets, liabilities, income and expenditure of registered companies transacting fire insurance in Canada. The majority of fire insurance companies also transact casualty insurance dealt with in Section 3 of this Chapter. Owing to the fact that it is impossible for such companies to allocate their assets and liabilities and their general income and expenditure among the various types of business transacted, totals only are given here. Table 28, p. 1119, gives similar information for registered companies whose transactions are confined to casualty insurance.

**5.—Assets of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance under Dominion Registration, 1943-47**

Assets	1943	1944	1945	1946	1947
	\$	\$	\$	\$	\$
<b>Canadian Companies</b> (In All Countries)					
Real estate.....	1,958,504	1,710,883	1,874,593	2,129,902	2,142,439
Loans on real estate.....	2,270,836	2,284,582	2,105,872	1,998,430	2,742,931
Bonds, debentures and stocks.....	86,510,962	89,698,509	97,076,704	101,023,456	108,937,001
Agents' balances and premiums out-					
standing.....	5,185,794	5,781,397	6,505,708	8,701,179	10,803,637
Cash.....	10,418,705	10,829,062	11,849,935	14,851,373	16,296,234
Interest and rents.....	624,908	624,739	679,550	683,413	741,898
Other assets.....	3,664,294	5,077,414	4,307,338	4,999,266	5,489,658
<b>Totals, Canadian Companies</b> .....	<b>110,634,003</b>	<b>116,006,586</b>	<b>124,399,700</b>	<b>134,387,019</b>	<b>147,153,798</b>

**5.—Assets of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance under Dominion Registration, 1943-47—concluded**

Assets	1943	1944	1945	1946	1947
	\$	\$	\$	\$	\$
<b>British Companies</b> (In Canada)					
Real estate.....	1,465,834	950,427	929,527	940,577	940,296
Loans on real estate.....	1,022,141	3,669	28,758	22,750	29,750
Bonds, debentures and stocks.....	47,914,859	47,133,415	49,866,285	53,105,494	60,908,309
Agents' balances and premiums outstanding.....	4,043,191	4,574,072	4,819,942	6,206,998	7,915,624
Cash.....	5,996,493	6,919,414	7,034,461	7,606,813	10,884,344
Interest and rents.....	199,024	165,873	172,661	191,114	223,552
Other assets in Canada.....	1,282,180	1,628,590	2,039,276	1,776,013	2,016,777
<b>Totals, British Companies.....</b>	<b>61,923,722</b>	<b>61,375,460</b>	<b>64,890,910</b>	<b>69,849,759</b>	<b>82,918,652</b>
<b>Foreign Companies</b> (In Canada)					
Real estate.....	—	—	—	—	—
Loans on real estate.....	11,450	8,000	7,750	7,750	7,750
Bonds, debentures and stocks.....	44,781,193	47,189,726	52,602,388	55,846,426	60,138,599
Agents' balances and premiums outstanding.....	3,635,151	4,421,711	4,401,436	5,986,212	6,475,163
Cash.....	10,472,994	10,818,160	12,013,101	16,043,039	17,435,233
Interest and rents.....	198,001	215,240	240,396	294,732	336,804
Other assets in Canada.....	402,886	1,392,041	1,478,899	1,112,242	1,224,567
<b>Totals, Foreign Companies.....</b>	<b>59,501,675</b>	<b>64,044,878</b>	<b>70,743,970</b>	<b>79,290,401</b>	<b>85,618,116</b>

**6.—Liabilities of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance under Dominion Registration, 1943-47**

Liabilities	1943	1944	1945	1946	1947
	\$	\$	\$	\$	\$
<b>Canadian Companies</b> (In All Countries)					
Reserves for unsettled claims.....	10,356,038	12,026,543	13,679,331	15,699,522	18,651,082
Reserves of unearned premiums.....	20,290,350	22,165,363	24,964,320	30,252,125	36,393,343
Sundry items.....	14,669,731	14,647,168	15,593,120	17,870,512	20,491,145
<b>Totals, Canadian Companies.....</b>	<b>45,316,119</b>	<b>48,839,074</b>	<b>54,236,771</b>	<b>63,822,159</b>	<b>75,535,570</b>
Excess of assets over liabilities.....	65,317,884	67,167,512	70,162,929	70,564,860	71,618,228
Capital stock paid up.....	19,072,815	19,107,815	19,022,740	19,000,240	18,900,240
<b>British Companies</b> (In Canada)					
Reserves for unsettled claims.....	5,428,270	6,421,046	7,885,706	9,787,750	12,157,329
Reserves of unearned premiums.....	18,903,902	21,185,456	23,739,943	27,598,726	34,282,841
Sundry items.....	3,253,620	3,158,040	3,185,419	3,478,702	3,640,009
<b>Totals, British Companies.....</b>	<b>27,585,792</b>	<b>30,764,542</b>	<b>34,811,065</b>	<b>40,865,178</b>	<b>50,080,179</b>
Excess of assets over liabilities.....	34,337,930	30,610,918	30,079,842	28,984,581	32,838,473
<b>Foreign Companies</b> (In Canada)					
Reserves for unsettled claims.....	3,965,541	5,212,799	6,010,366	6,449,921	7,336,841
Reserves of unearned premiums.....	18,401,808	20,694,123	23,544,748	27,698,154	32,571,249
Sundry items.....	2,133,744	2,982,601	3,430,702	3,864,808	3,944,926
<b>Totals, Foreign Companies.....</b>	<b>24,501,093</b>	<b>28,889,523</b>	<b>32,985,816</b>	<b>38,012,883</b>	<b>43,853,016</b>
Excess of assets over liabilities, excluding capital.....	35,000,582	35,155,355	37,758,154	41,277,518	41,765,100



**7. — Income and Expenditure of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance under Dominion Registration, 1943-47.**

Item	1943	1944	1945	1946	1947
	\$	\$	\$	\$	\$
<b>INCOME</b>					
<b>Canadian Companies</b> (In All Countries)					
Net premiums written, fire and other insurance.....	35,866,506	39,031,985	42,906,033	52,730,472	64,540,012
Interest, dividends and rents earned.....	3,430,376 <sup>1</sup>	3,492,647 <sup>1</sup>	3,593,237 <sup>1</sup>	3,548,376	3,739,661
Sundry items.....	—	—	—	84,608	78,056
<b>Totals, Canadian Companies.....</b>	<b>39,296,882</b>	<b>42,524,632</b>	<b>46,499,270</b>	<b>56,363,456</b>	<b>68,357,729</b>
<b>British Companies</b> (In Canada)					
Net premiums written.....	29,143,004	33,545,317	36,144,466	43,077,829	56,037,195
Interest, dividends and rents earned.....	840,132 <sup>1</sup>	742,999 <sup>1</sup>	790,256 <sup>1</sup>	787,650	897,526
Sundry items.....	—	—	—	17,102	2,205
<b>Totals, British Companies.....</b>	<b>29,983,136</b>	<b>34,288,316</b>	<b>36,934,722</b>	<b>43,882,581</b>	<b>56,936,926</b>
<b>Foreign Companies</b> (In Canada)					
Net premiums written.....	26,165,440	31,843,023	33,805,336	42,706,012	52,068,110
Interest, dividends and rents earned.....	1,249,104 <sup>1</sup>	1,221,060 <sup>1</sup>	1,359,692 <sup>1</sup>	1,567,487	1,551,139
Sundry items.....	—	—	—	10,116	12,320
<b>Totals, Foreign Companies.....</b>	<b>27,414,544</b>	<b>33,064,083</b>	<b>35,165,028</b>	<b>44,283,615</b>	<b>53,631,569</b>
<b>EXPENDITURE</b>					
<b>Canadian Companies</b> (In All Countries)					
Incurring for claims (fire).....	6,592,774	8,029,734	8,488,190	10,073,760	10,608,241
General expenses (fire).....	6,946,734	7,588,183	8,108,848	9,485,437	10,987,221
Incurring for claims (casualty).....	9,302,636	9,909,110	11,176,408	14,029,440	19,118,640
General expenses (casualty).....	8,639,456	8,973,919	9,985,101	12,751,863	15,591,761
Dividends or bonuses to shareholders.....	1,509,672	1,409,422	1,507,615	1,481,286	1,509,757
Premium taxes and fees.....	987,818	1,124,965	1,122,947	1,396,794	1,687,932
Income war tax.....	768,667	534,375	430,582	234,857	755,938
Excess profits tax.....	1,179,519	848,977	532,465	271,562	51,779
Provincial corporation income tax.....	—	—	—	—	46,868
Dividends to policyholders.....	236,942	282,330	261,876	263,389	125,924
British and foreign war taxes.....	610,738	378,201	122,215	229,625	443,171
<b>Totals, Canadian Companies.....</b>	<b>36,874,956<sup>2</sup></b>	<b>39,104,216<sup>3</sup></b>	<b>41,836,247<sup>4</sup></b>	<b>50,318,013<sup>4</sup></b>	<b>61,057,232<sup>4</sup></b>
Excess of income over expenditure.....	2,421,926	3,420,416	4,663,023	6,045,443	7,300,497
<b>British Companies</b> (In Canada)					
Incurring for claims (fire).....	7,921,087	9,854,786	11,105,542	13,145,261	14,135,948
General expenses (fire).....	7,694,425	8,479,429	9,064,407	10,236,092	13,196,440
Incurring for claims (casualty).....	5,276,766	6,023,953	7,215,277	9,286,700	11,938,185
General expenses (casualty).....	5,723,603	6,096,821	6,683,517	8,364,843	9,884,254
Premium taxes and fees.....	903,548	1,011,887	1,046,323	1,218,622	1,551,083
Income war tax.....	312,253	105,385	35,889	14,687	175,255
Excess profits tax.....	593,548	149,752	5,820	3,443	7,599
Provincial corporation income tax.....	—	—	—	—	5,846
<b>Totals, British Companies.....</b>	<b>28,425,230</b>	<b>31,722,013</b>	<b>35,156,775</b>	<b>42,269,648</b>	<b>50,894,610</b>
Excess of income over expenditure.....	1,557,906	2,566,303	1,777,947	1,612,933	6,042,316

<sup>1</sup> Included with "interest", repayment of premium on capital.

<sup>2</sup> Includes \$100,000 unallocatable expense.

<sup>3</sup> Includes \$25,000

<sup>4</sup> Includes \$100,000 preference stock redeemed.

**7.—Income and Expenditure of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance under Dominion Registration, 1943-47—concluded.**

Item	1943	1944	1945	1946	1947
	\$	\$	\$	\$	\$
<b>EXPENDITURE—concluded</b>					
<b>Foreign Companies</b> (In Canada)					
Incurred for claims (fire).....	9,385,849	13,077,587	13,240,860	14,784,267	17,785,084
General expenses (fire).....	7,517,533	8,629,549	9,210,464	10,571,248	13,257,313
Incurred for claims (casualty).....	4,580,220	6,151,913	4,353,741	6,099,034	8,758,502
General expenses (casualty).....	2,818,002	3,470,294	3,543,822	4,734,861	5,432,855
Premium taxes and fees.....	861,550	1,003,305	1,048,481	1,286,722	1,398,691
Income war tax.....	112,057	22,061	38,689	44,262	470,044
Excess profits tax.....	185,894	39,362	81,328	80,451	178,596
Provincial corporation income tax.....	—	—	—	—	55,914
Dividends or savings credited to subscribers.....	682,726	709,425	735,323	2,457,857	2,347,838
<b>Totals, Foreign Companies.....</b>	<b>26,143,831</b>	<b>33,103,496</b>	<b>32,252,708</b>	<b>40,059,062<sup>1</sup></b>	<b>49,684,477<sup>1</sup></b>
Excess of income over expenditure.....	1,270,713	—39,413	2,912,320	4,224,553	3,947,092

<sup>1</sup> Includes recovery of \$360 penalty incurred.

**EXTRACTS FROM THE STATISTICAL BULLETIN OF THE CANADIAN FIRE MARSHALS AND THE DOMINION FIRE PREVENTION ASSOCIATION**

**Fire Losses.**—The information in Tables 8 to 11 has been summarized from the Statistical Bulletin of the Association of Canadian Fire Marshals and the Dominion Fire Prevention Association, prepared by the Dominion Fire Commissioner, which deals with the loss of property and life caused by fire.

**8.—Fire Losses in Canada, 1939-48**

**NOTE.**—Figures for 1926-38 are given at p. 1078 of the 1947 Year Book. Earlier figures from 1898 may be obtained from the Department of Insurance.

Year	Fires Reported	Property Loss	Loss per Capita	Deaths by Fire	Year	Fires Reported	Property Loss	Loss per Capita	Deaths by Fire
	No.	\$	\$	No.		No.	\$	\$	No.
1939.....	45,755	24,632,509	2.18	263	1944.....	50,719	40,562,478 <sup>1</sup>	3.39	307
1940.....	46,629	22,735,264	2.01	243	1945.....	52,173	41,903,020 <sup>1</sup>	3.46	391
1941.....	48,609	28,042,907	2.46	323	1946.....	55,400	49,413,363 <sup>1</sup>	4.01	408
1942.....	47,596	31,182,238	2.70	304	1947.....	52,931	57,050,461 <sup>1</sup>	4.53	390
1943.....	47,594	31,464,710 <sup>1</sup>	2.67	319	1948.....	53,048	67,144,473 <sup>1</sup>	5.21	493

<sup>1</sup> Not including losses incurred in National Defence and other Crown properties.

## 9.—Fire Losses, by Provinces, 1943-47

Province or Territory	1943	1944	1945	1946	1947	Five-Year Average
	\$	\$	\$	\$	\$	\$
Prince Edward Island.....	116,304	247,507	257,504	1,214,421	441,672	455,482
Nova Scotia.....	1,627,719	2,840,832	1,758,747	2,543,875	3,390,062	2,432,297
New Brunswick.....	1,281,341	2,028,382	1,835,331	2,278,947	2,301,141	1,945,028
Quebec.....	10,323,563	14,213,460	14,033,510	17,247,675	17,434,820	14,650,606
Ontario.....	10,664,393	13,356,516	14,464,189	16,273,816	18,974,719	14,746,727
Manitoba.....	1,351,505	1,158,957	1,159,801	1,909,952	2,359,511	1,587,945
Saskatchewan.....	892,550	1,218,591	938,516	1,834,278	1,480,584	1,272,904
Alberta.....	1,199,106	1,896,284	2,208,120	2,544,689	2,131,089	1,995,854
British Columbia.....	4,008,229	3,601,949	5,247,302	3,437,408	8,359,901	4,930,958
Yukon and N.W.T.....	..	..	..	128,302 <sup>1</sup>	176,962	..
<b>Canada.....</b>	<b>31,464,710<sup>2</sup></b>	<b>40,562,478<sup>2</sup></b>	<b>41,903,020<sup>2</sup></b>	<b>49,413,363<sup>2</sup></b>	<b>57,050,461<sup>2</sup></b>	<b>44,078,797</b>

<sup>1</sup> Available for the first time in 1946.<sup>2</sup> See footnote to Table 8, p. 1102.

The property losses by provinces given in Table 9 are the total fire losses insured and uninsured. The percentages of the provincial total uninsured were as follows: Prince Edward Island, 44; Nova Scotia, 34; New Brunswick, 46; Quebec, 20; Ontario, 17; Manitoba, 11; Saskatchewan, 26; Alberta, 8; British Columbia, 61; and Yukon and Northwest Territories, 86. Uninsured losses formed 27 p.c. of total losses for Canada.

## 10.—Fire Losses, by Type of Property, 1947

Type of Property	Fires Reported	Property Loss	Type of Property	Fires Reported	Property Loss
	No.	\$		No.	\$
Residential.....	38,889	10,207,785	Institutional and assembly...	649	2,675,035
Mercantile.....	5,611	16,513,461	Miscellaneous.....	2,653	8,861,091
Farm.....	3,272	6,075,664			
Manufacturing.....	1,857	12,717,425	<b>Totals.....</b>	<b>52,931</b>	<b>57,050,461</b>

## 11.—Fire Losses, by Origin, 1947

Cause Reported	Fires Reported	Property Loss	Cause Reported	Fires Reported	Property Loss
	No.	\$		No.	\$
Smokers' carelessness.....	18,202	5,244,747	Lightning.....	1,735	1,183,273
Stoves, furnaces, boilers and smoke pipes.....	5,086	3,764,826	Exposure fires.....	548	1,474,579
Electrical wiring and appliances.....	4,033	4,624,127	Spontaneous ignition.....	400	1,021,222
Defective and overheated chimneys and flues.....	2,780	2,156,321	Incendiarism.....	271	1,397,137
Matches.....	2,626	671,310	Miscellaneous known causes (explosions, fireworks, friction, hot grease or metal, steam and hot water pipes, etc.).....	4,070	4,186,893
Hot ashes, coals, open fires....	2,259	1,480,748	Unknown.....	6,531	26,063,251
Petroleum and its products....	1,824	2,148,878			
Sparks on roofs.....	1,177	719,361	<b>Totals.....</b>	<b>52,931</b>	<b>57,050,461</b>
Lights, other than electric.....	1,389	913,788			



Section 2.—Life Insurance

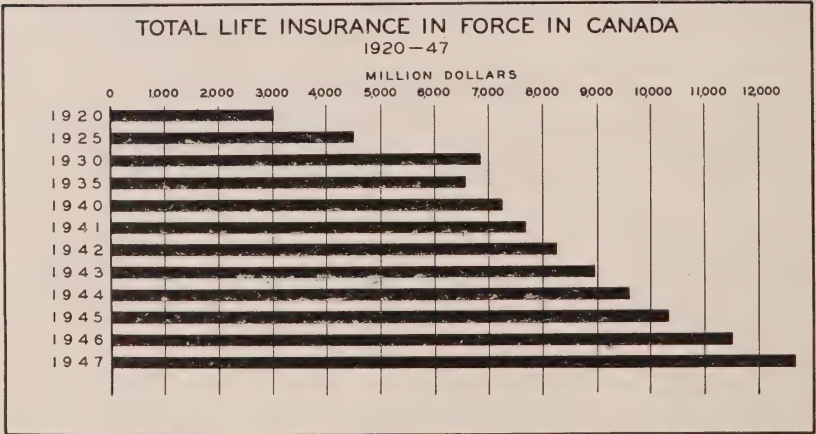
Life insurance in force in Canada, in companies registered by the Dominion, was over \$13,105,000,000 in 1948, an increase of more than \$1,205,000,000 over the figure for 1947. There has been not only an increase in new business, but also a greater stability in business written compared with the depression in early war years. The effect of these factors is reflected in the ratio of gain in business in force expressed as a percentage of the amount in force at the beginning of the same year.

Year	Net in Force at Beginning of Year	Gain in Force for the Year	Per- centage Gain
	\$	\$	
1930.....	6,157,000,000	335,000,000	5.4
1935.....	6,221,000,000	38,000,000	0.6
1939.....	6,630,000,000	146,000,000	2.2
1940.....	6,776,000,000	199,000,000	2.9
1941.....	6,975,000,000	374,000,000	5.4
1942.....	7,349,000,000	527,000,000	7.2
1943.....	7,876,000,000 <sup>1</sup>	658,000,000	8.4
1944.....	8,534,000,000	605,000,000	7.1
1945.....	9,139,000,000	612,000,000	6.7
1946.....	9,751,000,000	1,061,000,000	10.9
1947.....	10,812,000,000	1,088,000,000	10.1
1948.....	11,900,000,000	1,205,000,000	10.1

<sup>1</sup> Excluding \$44,000,000 adjustment arising out of method of reporting juvenile insurance.

Subsection 1.—Grand Total of Life Insurance in Canada

In addition to the business transacted by life insurance companies registered by the Federal Government, a considerable volume of business is also transacted by companies licensed by the provinces. Statistics of these provincial companies have been collected since 1915 by the Department of Insurance. Table 12 summarizes the volume of business transacted by Canadian, British and foreign life insurance companies and fraternal societies, whether registered by the Federal Government or licensed by the provinces.



## 12.—Dominion and Provincial Life Insurance in Canada, by Class of Licensee and by Type of Company, 1947

Item	New Policies Effectuated (net)	Net Insurance in Force, Dec. 31	Net Premiums Received	Net Claims Paid
	\$	\$	\$	\$
<b>CLASS OF LICENSEE</b>				
<b>Dominion Licensees—</b>				
Life companies.....	1,453,255,487	11,900,258,220	304,487,376	102,244,849
Fraternal societies.....	39,257,726	286,340,279	5,373,608	4,108,696
<b>Totals, Dominion Licensees.....</b>	<b>1,492,513,213</b>	<b>12,186,598,499</b>	<b>309,860,984</b>	<b>106,353,545</b>
<b>Provincial Licensees—</b>				
Provincial Companies within Province by which they are Incorporated—				
Life companies.....	77,282,975	296,503,659	6,921,120	1,206,940
Fraternal societies.....	13,894,675	99,879,385	2,120,884	1,270,427
Provincial Companies in Provinces other than those by which they are Incorporated—				
Life companies.....	6,356,532	35,315,718	898,645	301,883
Fraternal societies.....	6,331,521	57,493,127	1,217,300	857,026
<b>Totals, Provincial Licensees.....</b>	<b>103,865,703</b>	<b>489,191,889</b>	<b>11,157,949</b>	<b>3,636,276</b>
<b>Grand Totals.....</b>	<b>1,596,378,916</b>	<b>12,675,790,388</b>	<b>321,018,933</b>	<b>109,989,821</b>
<b>TYPE OF COMPANY</b>				
<b>Canadian Life—</b>				
Dominion.....	1,013,308,185	7,964,185,291	198,265,363	64,916,617
Provincial.....	83,639,507	331,819,377	7,819,765	1,508,823
<b>Canadian Fraternal—</b>				
Dominion.....	23,578,289	175,202,012	2,667,206	2,846,412
Provincial.....	20,226,196	157,372,512	3,338,184	2,127,453
British life.....	35,808,762	238,614,767	6,061,739	2,854,013
Foreign life.....	404,138,540	3,697,458,162	100,160,274	34,474,219
Foreign fraternal.....	15,679,437	111,138,267	2,706,402	1,262,284

### Subsection 2.—Historical and Operational Statistics of Life Insurance Companies Registered by the Federal Government

The net life insurance in force of all companies with Dominion registration was only \$35,680,082 in 1869, while in 1948 it was \$13,105,352,888.\* The amount per head of the estimated population of Canada has more than doubled since 1926—evidence of the general recognition of the value of life insurance for the adequate protection of dependants against misfortune. Notable also is the fact that in this field British companies, the leaders in 1869, have fallen far behind Canadian and foreign companies.

\* This total does not include fraternal insurance.

### 13.—Life Insurance in Force and Effected in Canada by Companies operating under Dominion Registration (Fraternal Insurance Excluded)<sup>1</sup>, 1880-1948

NOTE.—Figures for the years 1880-99 are given at p. 958 of the 1938 Year Book, and figures for the years 1901-39 at p. 855 of the 1942 edition.

Year	Net Amounts in Force				Insurance in Force per Head of Estimated Population <sup>2</sup>	Net Amount of New Insurance Effected during Year
	Canadian Companies	British Companies	Foreign Companies	Total		
	\$	\$	\$	\$	\$	\$
1880.....	37,838,518	19,789,863	33,643,745	91,272,126	21.45	13,906,887
1890.....	135,218,990	31,613,730	81,591,847	248,424,567	51.98	39,802,956
1900.....	267,151,086	39,485,344	124,433,416	431,069,846	81.32	67,729,115
1910.....	565,667,110	47,816,775	242,629,174	856,113,059	122.51	150,755,305
1920.....	1,664,348,605	76,883,090	915,793,798	2,657,025,493	310.55	630,110,900
1930.....	4,319,370,209	117,410,860	2,055,502,125	6,492,283,194	636.00	884,749,748
1940.....	4,609,213,977	145,603,299	2,220,505,184	6,975,322,460	612.89	590,205,536
1941.....	4,835,925,659	145,597,309	2,367,027,774	7,348,550,742	638.62	688,344,283
1942.....	5,184,568,369	152,289,487	2,538,897,449	7,875,755,305	675.80	818,558,946
1943.....	5,586,515,285	162,287,617	2,785,290,816	8,534,093,718	722.49	887,522,851
1944.....	6,001,984,634	171,997,834	2,965,501,763	9,139,484,231	763.21	900,501,491
1945.....	6,440,615,383	183,779,511	3,128,645,941	9,751,040,835	804.61	1,002,576,955
1946.....	7,201,285,815	205,626,216	3,405,480,833	10,812,392,864	878.56	1,393,522,667
1947.....	7,964,185,291*	238,614,767	3,697,458,162	11,900,258,220*	946.82*	1,453,255,487*
1948 <sup>2</sup> .....	8,830,952,866	270,105,664	4,004,294,353	13,105,352,888	1,017.25	1,504,131,707

<sup>1</sup> For statistics of fraternal insurance, see pp. 1111-1113.  
at p. 155.

<sup>2</sup> 1948 figures are subject to revision.

<sup>2</sup> Based on estimates of population given at p. 155.

Life insurance business was transacted in Canada during 1947 by 48 active companies with Dominion registration, including 29 Canadian, 4 British and 15 foreign companies; one of these foreign companies was registered only for the acceptance of reinsurance. In addition to these active companies, there were 8 British and 4 foreign companies writing little or no new insurance, this business being confined largely to the policies already on their books.

The operations analysed in the tables of this Subsection, with the exception of Table 17, cover only those companies with Dominion registration and are exclusive of fraternal organizations and provincial licensees. However, as indicated in Table 12, their operations cover about 94 p.c. of the life insurance in force in Canada.

### 14.—Life Insurance in Canada by Companies operating under Dominion Registration, 1945-47

Year and Nationality of Company	Policies Effected		Policies in Force		Net Premium Income	Net Claims Paid <sup>1</sup>
	No.	Net Amount	No.	Net Amount		
		\$		\$	\$	\$
<b>1945</b>						
Canadian.....	299,437	682,481,020	3,047,549	6,440,615,383	166,267,208	60,336,606
British.....	6,936	18,326,511	141,499	183,779,511	5,239,766	2,620,057
Foreign.....	376,171	301,769,424	4,637,124	3,126,645,941	89,669,126	34,652,327
<b>Totals, 1945.....</b>	<b>682,544</b>	<b>1,002,576,955</b>	<b>7,826,172</b>	<b>9,751,040,835</b>	<b>261,176,100</b>	<b>97,638,990</b>
<b>1946</b>						
Canadian.....	363,924	981,041,044	3,257,437	7,201,285,815	184,065,299	62,253,925
British.....	10,002	30,197,611	144,022	205,626,216	5,510,427	2,487,777
Foreign.....	388,054	382,284,012	4,719,807	3,405,480,833	94,362,353	34,104,556
<b>Totals, 1946.....</b>	<b>761,980</b>	<b>1,393,522,667</b>	<b>8,121,266</b>	<b>10,812,392,864</b>	<b>283,938,079</b>	<b>98,846,258</b>
<b>1947</b>						
Canadian.....	351,400	1,013,308,185	3,436,752	7,964,185,291	198,265,363	64,916,617
British.....	9,392	35,808,762	145,857	238,614,767	6,061,739	2,854,013
Foreign.....	387,118	404,138,540	4,794,628	3,697,458,162	100,160,274	34,474,219
<b>Totals, 1947.....</b>	<b>747,910</b>	<b>1,453,255,487</b>	<b>8,377,237</b>	<b>11,900,258,220</b>	<b>304,487,376</b>	<b>102,244,849</b>

<sup>1</sup> Death claims, matured endowments and disability claims.



### 15.—Progress of Life Insurance in Canada Transacted under Dominion Registration, 1943-47

Item	1943	1944	1945	1946	1947
<b>Canadian Companies—</b>					
Policies effected.....No.	275,583	275,309	299,437	363,924	351,400
Policies in force at end of each year. "	2,719,576	2,876,145	3,047,549	3,257,437	3,436,752
Policies become claims....."	26,702	32,359	31,941	28,931	30,146
Net amounts of policies effected...\$	578,856,066	601,896,540	682,481,020	981,041,044	1,013,308,185
Net amounts of policies in force....\$	5,586,515,285	6,001,984,634	6,440,615,383	7,201,255,815	7,964,185,291
Net amounts of policies become claims.....\$	54,133,244	65,685,567	65,384,684	59,795,077	64,327,683
Net amounts of premiums.....\$	145,575,912	155,626,868	166,267,208	184,065,299	198,265,363
Net claims paid <sup>1</sup> .....\$	50,975,556	57,050,240	60,336,606	62,253,925	64,916,617
Net outstanding claims.....\$	14,088,335	17,193,178	17,069,149	15,325,253	16,941,478
<b>British Companies—</b>					
Policies effected.....No.	5,881	6,484	6,936	10,002	9,392
Policies in force at end of each year. "	141,277	141,357	141,499	144,022	145,857
Policies become claims....."	3,001	3,125	2,953	2,651	2,398
Net amounts of policies effected...\$	15,190,620	15,944,248	18,326,511	30,197,611	35,808,762
Net amounts of policies in force....\$	162,287,617	171,997,834	183,779,511	205,626,216	236,614,767
Net amounts of policies become claims.....\$	2,107,040	2,920,813	2,623,828	2,881,097	2,588,420
Net amounts of premiums.....\$	4,466,810	4,654,059	5,239,766	5,510,427	6,061,739
Net claims paid <sup>1</sup> .....\$	1,894,247	2,576,808	2,620,057	2,487,777	2,854,013
Net outstanding claims.....\$	719,375	941,768	740,255	1,144,606	773,236
<b>Foreign Companies—</b>					
Policies effected.....No.	387,278	375,336	376,171	388,054	387,118
Policies in force at end of each year. "	4,390,649	4,525,934	4,637,124	4,719,807	4,794,628
Policies become claims....."	78,166	85,887	86,375	78,110	74,340
Net amounts of policies effected...\$	293,476,165	282,660,703	301,769,424	382,284,012	404,138,540
Net amounts of policies in force....\$	2,785,290,816	2,965,501,763	3,126,645,941	3,405,480,833	3,697,458,162
Net amounts of policies become claims.....\$	28,610,510	32,351,099	34,283,865	32,493,314	32,832,694
Net amounts of premiums.....\$	78,657,280	84,145,956	89,669,126	94,362,353	100,160,274
Net claims paid <sup>1</sup> .....\$	29,030,261	32,939,911	34,682,327	34,104,556	34,474,219
Net outstanding claims.....\$	4,245,994	4,140,836	4,187,975	3,835,910	4,176,725
<b>All Companies—</b>					
Policies effected.....No.	668,742	657,129	682,544	761,980	747,910
Policies in force at end of each year. "	7,251,502	7,543,436	7,826,172	8,121,266	8,377,237
Policies become claims....."	107,869	121,371	121,269	109,692	106,884
Net amounts of policies effected...\$	887,522,851	900,501,491	1,002,576,955	1,393,522,667	1,453,255,487
Net amounts of policies in force....\$	8,534,093,718	9,139,484,231	9,751,040,835	10,812,392,864	11,900,258,220
Net amounts of policies become claims.....\$	84,850,794	100,957,479	102,292,377	95,169,488	99,748,797
Net amounts of premiums.....\$	228,700,002	244,426,883	261,176,100	283,938,079	304,487,376
Net claims paid <sup>1</sup> .....\$	81,900,064	92,566,959	97,638,990	98,846,258	102,244,849
Net outstanding claims.....\$	19,053,704	22,275,782	21,997,379	20,305,769	21,891,439

<sup>1</sup> Death claims, matured endowments and disability claims.

### 16.—Ordinary, Industrial and Group Life Insurance Policies in Force and Effected in Canada by Companies operating under Dominion Registration, 1947

Type of Policy and Nationality of Company	New Policies Effected			Policies in Force		
	No.	Net Amount	Average Amount of a Policy	No.	Net Amount	Average Amount of a Policy
		\$	\$		\$	\$
<b>Ordinary Policies</b>						
Canadian.....	294,611	874,822,792	2,969	2,790,698	6,608,582,497	2,368
British.....	9,388	35,224,180	3,752	78,752	225,424,671	2,862
Foreign.....	137,508	272,405,031	1,981	1,360,516	2,170,251,009	1,595
<b>Totals, Ordinary Policies..</b>	<b>441,507</b>	<b>1,182,452,003</b>	<b>2,678</b>	<b>4,229,966</b>	<b>9,004,258,177</b>	<b>2,129</b>
<b>Industrial and Group Policies</b>						
Canadian.....	56,789	138,485,393	2,439	646,054	1,355,602,794	2,098
British.....	4	584,582	146,145	67,105	13,190,096	197
Foreign.....	249,610	131,733,509	527	3,434,112	1,527,207,153	445
<b>Totals, Industrial and Group Policies.....</b>	<b>306,403</b>	<b>270,803,484</b>	<b>883</b>	<b>4,147,271</b>	<b>2,896,000,043</b>	<b>698</b>

## 17.—Insurance Death Rates in Canada, 1944-47

Type of Insurer	Policies Exposed to Risk	Policies Terminated by Death	Death Rate per 1,000	Policies Exposed to Risk	Policies Terminated by Death	Death Rate per 1,000
	1944			1945		
	No.	No.		No.	No.	
All companies, ordinary.....	3,339,564	26,897	8.1	3,572,018	26,020	7.3
All companies, industrial.....	4,083,770	32,721	8.0	4,137,095	31,379	7.6
Fraternal benefit societies....	265,712	3,777	14.2	283,587	3,816	13.5
<b>Totals.....</b>	<b>7,689,046</b>	<b>63,395</b>	<b>8.2</b>	<b>7,992,700</b>	<b>61,215</b>	<b>7.7</b>
	1946			1947		
	No.	No.		No.	No.	
All companies, ordinary.....	3,837,605	21,092	5.5	4,114,518	22,199	5.4
All companies, industrial.....	4,156,102	28,801	6.9	4,155,939	29,002	7.0
Fraternal benefit societies....	299,976	3,690	12.3	318,386	3,869	12.2
<b>Totals.....</b>	<b>8,293,683</b>	<b>53,583</b>	<b>6.5</b>	<b>8,588,843</b>	<b>55,070</b>	<b>6.4</b>

## Subsection 3.—Finances of Life Insurance Companies

The financial statistics of the following tables cover only life insurance companies with Dominion registration and do not include fraternal organizations and provincial licensees. In the cases of British and foreign companies, the figures apply only to their assets, liabilities and operations in Canada but, in the case of Canadian companies, assets and liabilities, income and expenditure, arise in part from business abroad.

## 18.—Assets of Canadian Life Companies with Dominion Registration and Assets in Canada of British and Foreign Life Companies, 1943-47

NOTE.—One British company transacting fire insurance in Canada transacts also life insurance in Canada and, inasmuch as a separation of assets has not been made between these two classes, the assets in Canada are not included here, but are included in the assets of British companies shown in Table 5, p. 1100.

Assets	1943	1944	1945	1946	1947
	\$	\$	\$	\$	\$
<b>Canadian Companies<sup>1</sup></b>					
Real estate.....	52,187,032	41,263,835	36,221,517	33,281,227	32,891,859
Real estate held under agreement of sale.	30,855,034	28,245,920	23,682,724	19,703,190	13,541,974
Loans on real estate.....	274,950,311	256,021,923	266,830,202	302,149,079	395,322,472
Loans on collaterals.....	20,207	23,327	50,634	3,624,678	4,622,752
Policy loans.....	200,100,880	183,520,977	176,611,493	171,484,384	176,065,276
Bonds, debentures and stocks.....	2,250,955,172	2,517,911,770	2,823,785,410	3,001,698,868	3,139,800,067
Interest and rent due and accrued.....	29,077,729	28,672,576	29,324,740	30,486,316	32,464,881
Cash.....	32,440,072	29,735,147	36,262,205	36,662,318	58,200,105
Outstanding and deferred premiums.....	47,989,863	51,161,312	52,957,821	56,344,831	61,769,082
Other assets.....	3,389,378	3,517,376	4,025,247	3,831,747	4,421,624
<b>Totals, Canadian Companies<sup>2</sup>.....</b>	<b>2,921,965,678</b>	<b>3,140,074,163</b>	<b>3,449,751,993</b>	<b>3,659,266,638</b>	<b>3,919,100,092</b>
<b>British Companies</b>					
Real estate.....	751,747	454,220	386,660	523,449	1,367,574
Real estate held under agreements of sale.	15,670	14,385	12,937	6,220	5,460
Loans on real estate.....	6,093,272	5,318,644	5,032,282	5,142,067	5,034,002
Loans on collaterals.....	13,300	13,300			
Policy loans.....	2,618,499	2,296,697	2,100,602	2,058,475	2,130,497
Bonds, debentures and stocks.....	51,690,826	53,923,196	58,483,266	61,138,293	82,683,014
Interest and rent due and accrued.....	449,413	398,836	369,118	316,129	316,056
Cash.....	1,033,530	1,342,087	1,331,945	1,745,242	2,663,213
Outstanding and deferred premiums.....	486,494	500,172	566,337	658,048	764,566
Other assets.....	2,745	3,617	7,676	42,980	57,424
<b>Totals, British Companies.....</b>	<b>63,155,496</b>	<b>64,265,154</b>	<b>68,290,823</b>	<b>71,630,903</b>	<b>95,021,806</b>

For footnotes, see end of table, p. 1109.

**18.—Assets of Canadian Life Companies with Dominion Registration and Assets in Canada of British and Foreign Life Companies, 1943-47—concluded**

Assets	1943	1944	1945	1946	1947
	\$	\$	\$	\$	\$
<b>Foreign Companies</b>					
Real estate.....	2,643,794	2,482,447	1,484,729	1,486,158	1,496,594
Real estate held under agreements of sale.....	3	3	3	3	3
Loans on real estate.....	18,018,529	12,806,994	7,596,887	7,177,058	5,100,161
Loans on collaterals.....	3	3	3	3	3
Policy loans.....	47,123,506	43,765,493	41,740,177	40,691,189	41,084,362
Bonds, debentures and stocks.....	572,418,156	618,309,566	680,354,486	729,520,499	762,330,735
Interest and rent due and accrued.....	6,874,344	7,372,756	7,399,719	7,866,677	8,181,748
Cash.....	15,824,091	15,199,265	18,243,645	25,010,462	19,477,175
Outstanding and deferred premiums.....	11,063,244	11,905,054	12,927,754	13,489,268	14,564,448
Other assets.....	9,351	63,499	66,992	53,961	4,407
<b>Totals, Foreign Companies.....</b>	<b>673,975,015</b>	<b>711,905,074</b>	<b>769,814,389</b>	<b>825,295,272</b>	<b>852,239,630</b>

<sup>1</sup> A detailed classification of assets showing investments of Canadian companies and giving the percentage of the total in each group and sub-group for 1945, 1946 and 1947 will be found at p. xvi of the Report of the Superintendent of Insurance, Vol. II, for the year ended Dec. 31, 1947. <sup>2</sup> Book values. The totals carried into the balance sheets before 1945 included some market (or authorized) values of these assets; these totals were \$2,921,471,387 in 1943 and \$3,140,001,113 in 1944. After 1944, book values were in all cases carried into the balance sheet, any excess of book over market values being covered by a reserve in the liabilities. <sup>3</sup> None reported.

**19.—Liabilities of Canadian Life Companies with Dominion Registration and Liabilities in Canada of British and Foreign Life Companies, 1943-47**

Liabilities	1943	1944	1945	1946	1947
	\$	\$	\$	\$	\$
<b>Canadian Companies</b>					
Outstanding claims.....	33,125,562	39,851,589	42,698,262	39,652,519	40,807,959
Reserve under contracts in force.....	2,394,677,482	2,547,453,501	2,725,376,272	2,918,747,317	3,129,256,723
Sundry liabilities.....	404,729,168	442,255,524	538,603,430	536,624,725	573,368,763
<b>Totals, Canadian Companies<sup>1</sup>.....</b>	<b>2,832,532,212</b>	<b>3,029,560,614</b>	<b>3,306,677,964</b>	<b>3,495,024,561</b>	<b>3,743,433,445</b>
Surpluses of assets excluding capital.....	88,939,175	110,440,499	143,074,029	164,242,077	175,666,647
Capital stock paid up.....	11,852,230	11,853,660	11,878,900	11,976,040	12,392,630
<b>British Companies</b>					
Outstanding claims.....	719,375	941,769	740,255	1,144,606	773,236
Reserve under contracts in force.....	43,799,317	46,976,119	50,628,298	56,619,138	69,642,462
Sundry liabilities.....	679,830	915,701	1,238,456	1,441,519	1,429,377
<b>Totals, British Companies.....</b>	<b>45,198,522</b>	<b>48,833,589</b>	<b>52,607,009</b>	<b>59,205,263</b>	<b>71,845,075</b>
Surpluses of assets in Canada <sup>2</sup> .....	17,957,819	15,432,410	15,684,698	12,426,531	23,177,628
<b>Foreign Companies</b>					
Outstanding claims.....	4,245,996	4,140,835	4,187,975	3,835,910	4,176,724
Reserve under contracts in force.....	542,664,034	581,778,494	622,351,836	660,757,683	701,063,300
Sundry liabilities.....	30,876,602	35,319,871	38,811,479	42,105,472	45,436,937
<b>Totals, Foreign Companies.....</b>	<b>577,786,632</b>	<b>621,239,200</b>	<b>665,351,290</b>	<b>706,699,065</b>	<b>750,676,961</b>
Surpluses of assets in Canada.....	96,188,383	90,665,874	104,463,099	118,596,207	101,562,669

<sup>1</sup> Not including capital.

<sup>2</sup> Excludes one company which has not made a separation of its assets as between fire and life branches.



**20.—Cash Income and Expenditure of Canadian Life Companies with Dominion Registration and Cash Income and Expenditure in Canada of British and Foreign Life Companies, by Principal Items, 1943-47.**

Item	1943	1944	1945	1946	1947
	\$	\$	\$	\$	\$
<b>INCOME</b>					
<b>Canadian Companies</b>					
Net premium income (including sinking funds).....	267,104,940	284,552,359	309,416,004	340,608,203	369,542,361
Consideration for annuities.....	34,482,064	45,300,425	60,691,070	84,994,318	69,508,864
Interest, dividends and rents.....	112,251,402	119,689,333	121,285,219	124,551,975	127,843,385
Sundry items.....	72,239,576	84,512,379	116,262,083	123,782,803	111,550,755
<b>Totals, Canadian Companies.....</b>	<b>486,077,982</b>	<b>534,054,496</b>	<b>607,654,376</b>	<b>673,937,299</b>	<b>678,445,365</b>
<b>British Companies</b>					
Net premium income (including sinking funds).....	4,466,810	4,654,059	5,239,766	5,510,427	6,061,739
Consideration for annuities.....	475,887	1,079,410	1,430,955	3,255,498	10,281,393
Interest, dividends and rents.....	2,214,619	1,960,249	1,979,686	1,809,188	2,497,150
Sundry items.....	915,987	629,675	481,257	730,683	346,352
<b>Totals, British Companies.....</b>	<b>8,073,303</b>	<b>8,323,393</b>	<b>9,131,664</b>	<b>11,305,796</b>	<b>19,186,634</b>
<b>Foreign Companies</b>					
Net premium income.....	78,657,280	84,145,956	89,669,126	94,362,353	100,160,274
Consideration for annuities.....	1,635,024	2,000,012	2,066,772	2,769,557	4,109,094
Interest, dividends and rents.....	23,495,153	23,833,437	25,457,635	25,788,727	26,208,776
Sundry items.....	7,161,591	8,408,931	7,509,551	6,286,241	8,341,996
<b>Totals, Foreign Companies.....</b>	<b>110,949,048</b>	<b>118,388,336</b>	<b>124,703,084</b>	<b>129,206,878</b>	<b>138,820,140</b>
<b>EXPENDITURE</b>					
<b>Canadian Companies</b>					
Payments to policyholders.....	180,607,200	194,358,643	212,774,049	236,890,120	242,189,429
General expenses.....	63,492,701	68,515,005	74,693,716	92,498,807	107,620,042
Dividends to shareholders.....	1,315,301	1,324,171	1,332,458	1,396,973	2,072,436
Other disbursements.....	32,231,708	33,594,309	43,419,189	45,386,493	51,777,296
<b>Totals, Canadian Companies.....</b>	<b>277,646,910</b>	<b>297,792,128</b>	<b>332,219,412</b>	<b>376,172,393</b>	<b>403,659,203</b>
Excess of income over expenditure.....	208,431,072	236,262,368	275,434,964	297,764,906	274,786,162
<b>British Companies</b>					
Payments to policyholders.....	2,687,256	3,517,715	4,015,885	3,533,560	4,322,427
General expenses.....	1,274,665	1,375,639	1,648,302	2,279,662	2,726,330
Other disbursements.....	102,650	163,096	166,548	176,910	316,885
<b>Totals, British Companies.....</b>	<b>4,064,571</b>	<b>5,056,450</b>	<b>5,830,735</b>	<b>5,990,132</b>	<b>7,365,642</b>
Excess of income over expenditure.....	4,008,732	3,266,943	3,300,929	5,315,664	11,820,992
<b>Foreign Companies</b>					
Payments to policyholders.....	45,598,531	50,158,688	54,774,067	58,330,186	59,892,780
General expenses.....	16,922,479	17,342,564	18,207,661	20,328,025	23,318,382
Other disbursements.....	2,850,578	3,184,797	3,262,611	3,912,698	4,070,737
<b>Totals, Foreign Companies.....</b>	<b>65,371,588</b>	<b>70,686,049</b>	<b>76,244,359</b>	<b>82,570,909</b>	<b>87,281,899</b>
Excess of income over expenditure.....	45,577,460	47,702,287	48,458,725	46,635,969	51,538,241

**Subsection 4.—Life Insurance Effected through Fraternal Benefit Societies**

In addition to life insurance, some fraternal benefit societies grant other insurance benefits to members, notably sickness benefits, but these are relatively unimportant. Table 21 gives statistics of life insurance effected with fraternal benefit societies by Canadian members, together with statistics of assets, liabilities, income and expenditure relating to the whole business of Canadian societies and to the business in Canada of foreign societies. The rates charged by these societies are computed to be sufficient to provide the benefits granted, having regard for actuarial principles. The benefit funds of each society must be valued annually by a qualified actuary (Fellow, by examination, of the Institute of Actuaries, London; of the Faculty of Actuaries in Scotland; of the Actuarial Society of America; or of the American Institute of Actuaries) and, unless the actuary certifies to the solvency of each fund, a readjustment of rates or benefits must be made. The statistics in the first part of this table relate to the 16 Canadian societies reporting to the Insurance Department of the Federal Government, only one of which does not grant life insurance benefits.

Under an amendment to the Insurance Act, effective Jan. 1, 1920, all foreign fraternal benefit societies were required to obtain authority from the Federal Government prior to transacting business in Canada. However, any such societies which at that date were transacting business under provincial licences, while forbidden to accept new members, were permitted to continue all necessary transactions in respect of insurance already in force. Most of these societies and some foreign societies that had not previously been licensed by the provinces have since obtained federal authority to transact business. Of both classes of societies, 30 transacted business in Canada during 1947, two of which do not grant life insurance benefits.

**21.—Life Insurance in Canada of Fraternal Benefit Societies reporting to the Insurance Department of the Federal Government, 1943-47**

Item	1943	1944	1945	1946	1947
CANADIAN SOCIETIES	No.	No.	No.	No.	No.
Net certificates effected.....	16,822	15,724	17,781	22,251	22,068
Net certificates become claims.....	3,301	3,363	3,347	3,286	3,432
	\$	\$	\$	\$	\$
Net premium income.....	2,007,554	2,328,080	2,428,641	2,466,794	2,667,206
Net amounts of certificates effected.....	15,231,629	15,282,835	17,772,650	22,850,967	23,578,289
Net amounts in force.....	130,088,697	136,047,105	151,255,637	165,792,519	175,202,012
Net amounts of certificates become claims.....	2,732,071	2,695,737	2,845,697	2,812,487	2,964,099
Net benefits paid.....	3,150,963	3,237,437	3,096,212	3,187,842	3,347,165
Net outstanding claims.....	468,803	395,754	442,543	438,411	443,496
Gross Amounts Terminated by—					
Death.....	2,041,619	1,968,409	2,182,901	2,131,975	2,232,140
Surrender, expiry, lapse, etc.....	8,984,637	9,521,647	9,865,312	10,718,409	14,638,191
Totals, Terminated.....	11,026,256	11,490,056	12,048,213	12,850,384	16,870,331
Assets					
Real estate.....	6,787,719	5,572,863	4,523,584	3,698,409	2,385,120
Real estate held under agreements of sale.....	1,060,593	1,209,325	1,281,534	997,818	1,117,889
Loans on real estate.....	8,538,214	8,331,442	9,250,512	9,790,876	12,263,188
Policy loans.....	6,631,473	6,251,126	5,844,979	5,543,355	5,298,998
Bonds, debentures and stocks.....	63,886,281	67,609,473	70,852,761	74,553,928	76,634,957
Cash.....	1,620,793	1,931,621	1,940,682	1,572,543	2,018,260
Interest and rent due and accrued.....	739,764	769,824	783,156	763,085	692,053
Dues from members.....	369,591	366,214	329,423	359,822	405,758
Other assets.....	203,344	208,167	246,155	235,608	205,244
Totals, Assets <sup>1</sup> .....	89,937,772	92,250,055	95,053,086	97,515,444	101,021,467

<sup>1</sup> Includes business outside Canada.

**21.—Life Insurance in Canada of Fraternal Benefit Societies reporting to the Insurance Department of the Federal Government, 1943-47—continued**

Item	1943	1944	1945	1946	1947
	\$	\$	\$	\$	\$
<b>CANADIAN SOCIETIES—concluded</b>					
<b>Liabilities</b>					
Outstanding claims.....	590,294	511,531	565,453	552,453	709,33
Reserve under contracts in force.....	71,971,478	73,831,203	75,376,761	76,797,906	79,111,14
Other liabilities.....	7,523,778	7,965,582	9,012,574	9,881,197	10,019,57
<b>Totals, Liabilities<sup>1</sup>.....</b>	<b>80,085,550</b>	<b>82,308,316</b>	<b>84,954,788</b>	<b>87,231,556</b>	<b>89,840,05</b>
<b>Income</b>					
Premiums (for benefits).....	3,885,241	4,223,461	4,372,857	4,211,149	4,693,37
Fees and dues (for expenses).....	1,679,123	1,825,040	2,056,121	2,872,978	2,939,98
Interest and rents.....	3,880,708	3,799,614	4,047,952	3,969,289	3,871,28
Other receipts.....	246,740	770,656	822,914	1,317,891	1,564,08
<b>Totals, Income<sup>1</sup>.....</b>	<b>9,691,812</b>	<b>10,618,771</b>	<b>11,299,844</b>	<b>12,371,307</b>	<b>13,069,33</b>
<b>Expenditures</b>					
Paid to members.....	5,771,877	5,971,542	5,943,404	6,149,275	6,507,2
General expenses.....	1,634,841	1,772,304	2,108,049	2,851,288	3,037,8
Other expenditures.....	257,606	226,976	277,448	164,281	214,5
<b>Totals, Expenditures<sup>1</sup>.....</b>	<b>7,664,324</b>	<b>7,970,822</b>	<b>8,328,901</b>	<b>9,164,844</b>	<b>9,759,6</b>
Excess of income over expenditure.....	2,027,488	2,647,949	2,970,943	3,206,463	3,309,7
<b>FOREIGN SOCIETIES</b>					
	No.	No.	No.	No.	No.
Net certificates effected.....	9,506	11,553	10,379	11,827	11,6
Net certificates become claims.....	1,078	1,124	1,103	1,129	1,1
	\$	\$	\$	\$	\$
Net premium income.....	1,885,578	2,068,944	2,181,377	2,333,550	2,706,4
Net amounts of certificates effected.....	10,041,549	12,140,059	11,106,740	14,467,621	15,679,4
Net amounts in force.....	82,826,060	89,758,370	94,866,139	102,514,715	111,138,2
Net amounts of certificates become claims	1,178,288	1,197,928	1,170,293	1,175,955	1,258,7
Net benefits paid.....	1,463,704	1,521,494	1,589,596	1,680,546	1,688,6
Net outstanding claims.....	231,724	257,347	252,194	198,294	249,3
Gross Amounts Terminated by—					
Death.....	1,048,005	1,093,645	1,059,949	1,016,662	1,090,0
Surrender, expiry, lapse, etc.....	5,040,346	5,372,839	6,226,310	7,392,366	8,357,7
<b>Totals, Terminated.....</b>	<b>6,088,351</b>	<b>6,466,484</b>	<b>7,286,259</b>	<b>8,409,028</b>	<b>9,448,7</b>
<b>Assets</b>					
	977	977	977	977	
Real estate.....	126,728	111,532	101,977	118,513	76,8
Loans on real estate.....	1,477,320	1,415,190	1,304,229	1,275,184	1,291,
Policy loans.....	13,193,879	15,351,811	16,849,323	18,582,907	20,193,
Bonds, debentures and stocks.....	935,737	997,582	975,476	1,672,648	1,615,
Cash.....	104,055	120,809	137,852	148,256	162,
Interest and rent due and accrued.....	109,022	153,495	169,302	174,991	198,
Dues from members.....	24,635	22,315	32,432	1,000	
Other assets.....					
<b>Totals, Assets.....</b>	<b>15,972,353</b>	<b>18,203,711</b>	<b>19,571,568</b>	<b>21,974,476</b>	<b>23,539,</b>
<b>Liabilities</b>					
Outstanding claims.....	339,295	386,263	381,925	346,529	410,
Reserve under contracts in force.....	15,091,136	16,025,979	17,059,839	18,656,607	19,875,
Other liabilities.....	913,785	1,090,252	1,303,011	1,469,237	1,461,
<b>Totals, Liabilities.....</b>	<b>16,344,216</b>	<b>17,502,494</b>	<b>18,744,775</b>	<b>20,472,373</b>	<b>21,746,</b>

<sup>1</sup> Includes business outside Canada.



**21.—Life Insurance in Canada of Fraternal Benefit Societies reporting to the Insurance Department of the Federal Government, 1943-47—concluded**

Item	1943	1944	1945	1946	1947
	\$	\$	\$	\$	\$
<b>FOREIGN SOCIETIES—concluded</b>					
<b>Income</b>					
Premiums (for benefits).....	2,331,339	2,664,104	2,884,367	3,101,912	3,576,268
Fees and dues (for expenses).....	650,233	816,992	886,746	959,131	947,011
Interest and rents.....	494,246	447,876	580,592	625,677	664,204
Other receipts.....	190,080	151,119	202,930	240,873	358,638
<b>Totals, Income.....</b>	<b>3,665,898</b>	<b>4,080,091</b>	<b>4,554,635</b>	<b>4,927,593</b>	<b>5,546,121</b>
<b>Expenditures</b>					
Paid to members.....	1,811,382	2,029,658	2,154,868	2,291,600	2,311,253
General expenses.....	439,113	539,628	558,410	621,897	672,439
Other expenditures.....	49,003	60,161	61,299	70,541	232,996
<b>Totals, Expenditures.....</b>	<b>2,299,498</b>	<b>2,629,447</b>	<b>2,774,577</b>	<b>2,984,038</b>	<b>3,216,688</b>
Excess of income over expenditure.....	1,366,400	1,450,644	1,780,058	1,943,555	2,329,433

**Subsection 5.—Life Insurance in Force Outside Canada by Canadian Companies Registered by the Federal Government**

Tables 22 and 23 give summary statistics of insurance in force as at Dec. 31, 1947, in currencies other than Canadian, classified by companies and by the currencies in which business was written. The data given here are in Canadian dollars, mainly at par rates of exchange for the countries concerned, but there are several exceptions where, for purposes of account, certain companies have converted foreign currencies at rates other than par, particularly where the current rate differs substantially from the par rate. More than 62 p.c. of all such business in force was written in United States currency and over 22 p.c. in sterling. From another standpoint, over 32 p.c. was written in currency of British countries outside Canada, and over 67 p.c. in currencies of foreign countries.

Canadian life companies operating under Dominion registration had in force in countries outside Canada, at Dec. 31, 1947, life insurance amounting to \$4,530,325,046, and sinking fund and capital redemption insurance amounting to \$5,604,788. As shown in Table 22, insurance in force in currencies other than Canadian amounted to \$4,383,881,945. The difference between these figures is presumably the net amount of non-Canadian business transacted in Canadian currency. As against the total non-Canadian business, including annuity business, the British and foreign investments of Canadian life insurance companies as at Dec. 31, 1947, amounted to \$1,505,806,937. Since the business in force in Canada of these companies at Dec. 31, 1947, amounted to \$7,965,680,157 (including sinking fund of \$1,494,866), the total business on their books, Canadian and non-Canadian, amounted to \$12,501,609,991. Thus, over 36 p.c. of the total business in force was outside Canada.

**22.—Life Insurance Effectuated and in Force and Liabilities of Canadian Companies (Excluding Fraternal Societies) operating under Dominion Registration, in Currencies other than Canadian, by Companies, 1917.**

NOTE.—Figures are given in Canadian dollars, mainly at par rates of exchange.

Company	Insurance Effectuated			Insurance in Force		
	British Currencies	Foreign Currencies	Total	British Currencies	Foreign Currencies	Total
	\$	\$	\$	\$	\$	\$
Canada.....	18,196,688	22,069,978	40,266,666	163,950,037	233,985,064	397,935,101
Commercial.....	—	—	—	—	35,000	35,000
Confederation.....	21,701,820	26,229,514	47,931,334	125,326,765	127,403,136	252,729,901
Continental.....	—	—	—	30,910	131,283	162,193
Crown.....	14,881,588	40,576,746	55,458,334	60,314,605	127,064,088	187,378,693
Dominion.....	1,878,714	8,042,472	9,921,186	10,800,427	38,040,756	48,841,183
Dominion of Canada General.....	238,410	—	238,410	2,271,098	10,433	2,281,531
T. Eaton.....	—	—	—	15,000	4,821	19,821
Equitable.....	—	—	—	—	273,557	273,557
Great-West.....	—	46,918,781	46,918,781	560,431	276,538,525	277,098,956
Imperial.....	13,419,965	4,017,226	17,437,191	45,888,836	35,935,460	81,824,296
London.....	—	1,142,809	1,142,809	—	4,551,380	4,551,380
Manufacturers.....	40,205,559	53,789,571	93,995,130	242,261,748	289,841,642	532,103,390
Maritime.....	173,606	—	173,606	1,844,467	24,458	1,868,925
Monarch.....	—	4,000	4,000	—	183,500	183,500
Montreal.....	—	53,000	53,000	369,549	500,348	869,897
Mutual.....	58,000	1,210,734	1,268,734	1,127,063	13,266,625	14,393,688
National.....	1,002,807	293,462	1,296,269	5,932,812	691,745	6,624,557
North American.....	1,359,264	5,559,285	6,918,549	4,573,163	30,507,514	35,080,677
Northern.....	7,500	3,248,107	3,255,607	30,633	11,502,969	11,533,602
Sauvegarde.....	—	—	—	—	10,000	10,000
Sun.....	102,505,226	163,422,098	265,927,324	777,061,402	1,750,959,759	2,528,021,161
Western.....	—	—	—	—	60,936	60,936
<b>Totals.....</b>	<b>215,629,147</b>	<b>376,577,783</b>	<b>592,206,930</b>	<b>1,442,358,946</b>	<b>2,941,522,999</b>	<b>4,383,881,945</b>

Company	Liabilities		
	British	Foreign	Total
	\$	\$	\$
Canada.....	89,203,305	87,483,043	176,686,348
Commercial.....	—	15,945	15,945
Confederation.....	55,417,592	29,956,403	85,373,995
Continental.....	12,555	49,822	62,377
Crown.....	19,034,895	21,305,718	40,340,613
Dominion.....	2,055,191	9,223,951	11,279,142
Dominion of Canada General.....	436,948	2,888	439,836
T. Eaton.....	9,422	2,168	11,590
Equitable.....	—	71,052	71,052
Great-West.....	561,289	82,618,249	83,179,538
Imperial.....	14,320,135	11,653,301	25,973,436
London.....	—	465,694	465,694
Manufacturers.....	100,598,543	94,224,486	194,823,029
Maritime.....	734,949	9,666	744,615
Monarch.....	—	342,404	342,404
Montreal.....	—	139,626	139,626
Mutual.....	426,345	3,687,565	4,113,910
National.....	1,058,770	135,453	1,194,223
North American.....	897,758	8,919,351	9,817,109
Northern.....	10,984	823,877	834,861
Sauvegarde.....	—	860	860
Sun.....	354,194,054	594,609,748	948,803,802
Western.....	—	15,624	15,624
<b>Totals.....</b>	<b>638,973,081</b>	<b>945,756,894</b>	<b>1,584,729,975</b>

**23.—Life Insurance Effected and in Force and Liabilities by Canadian Companies (Excluding Fraternal Societies) operating under Dominion Registration, in Currencies other than Canadian, by Currencies, 1947.**

NOTE.—Figures are given in Canadian dollars, mainly at par rates of exchange.

Currency	Insurance Effected	Insurance in Force	Liabilities
	\$	\$	\$
<b>British—</b>			
Pounds—			
Sterling.....	149,885,357	986,056,521	487,290,654
Australia.....	—	—	866
British West Indies <sup>1</sup> .....	8,830,752	52,389,921	12,919,087
Palestine.....	924,181	4,031,039	647,623
South Africa.....	21,523,505	159,345,416	40,863,768
Southern Rhodesia.....	262,329	1,864,202	585,705
Dollars—			
British Guiana; British West Indies.....	9,128,060	56,481,809	17,783,593
Hong Kong.....	3,438,299	10,795,278	3,833,443
Straits Settlements.....	3,484,961	7,980,715	3,543,605
Rupees—			
British India.....	17,932,937	163,074,653	71,458,585
Shillings—			
East Africa.....	218,766	339,392	46,152
<b>Totals, British.....</b>	<b>215,629,147</b>	<b>1,442,358,946</b>	<b>638,973,081</b>
<b>Foreign—</b>			
Bolivares (Venezuela).....	7,078,349	9,631,126	308,896
Cordobas (Nicaragua).....	—	103,684	58,352
Dollars (China).....	25	1,650,596	1,128,144
Dollars (United States).....	324,056,998	2,733,295,315	894,413,392
Florins (Netherlands) <sup>2</sup> .....	209,010	1,960,721	1,239,742
Francs (France).....	—	113,569	100,522
Francs (Switzerland).....	—	5,600	14,532
Guilders (Netherlands) <sup>2</sup> .....	2,209,910	12,917,458	5,860,985
Pesos (Argentina).....	8,222,637	53,719,567	14,471,055
Pesos (Chile).....	—	2,204,365	1,507,186
Pesos (Colombia).....	2,210,585	5,841,125	844,657
Pesos (Cuba).....	7,451,751	28,621,351	2,899,794
Pesos (Mexico).....	2,992,407	17,437,500	3,367,693
Pesos (Philippines).....	16,854,780	28,314,811	4,348,273
Pounds (Egypt).....	5,282,926	34,338,288	8,248,176
Quetzales (Guatemala).....	—	—	12,189
Soles Oro (Peru).....	—	1,168,229	712,484
Ticals (Siam).....	8,405	1,740,124	1,037,285
Yen (Japan).....	—	8,390,872	5,129,054
Miscellaneous.....	—	68,698	54,483
<b>Totals, Foreign.....</b>	<b>376,577,783</b>	<b>2,941,522,999</b>	<b>945,756,894</b>
<b>Grand Totals.....</b>	<b>592,206,930</b>	<b>4,383,881,945</b>	<b>1,584,729,975</b>

<sup>1</sup> Including Bermuda.

<sup>2</sup> Indonesia, Netherlands Antilles and Netherlands Guiana.

**Subsection 6.—Grand Total of All Life Insurance in Canada and the Business of Canadian Organizations Abroad**

Table 24 summarizes the business outside Canada of Canadian life companies and fraternal benefit societies. If to these figures is added the business in Canada of these organizations, as shown in Table 12, the total business, internal and external, of all Canadian life insurance companies and fraternal societies may be obtained. Again, adding the business in Canada of British and foreign companies and fraternal societies, a grand total is obtained of all life insurance in Canada and of the life insurance business abroad of Canadian organizations; this total is shown in Table 25.



**24.—Business Abroad of Canadian Life Companies and Fraternal Societies, 1947**

NOTE.—Figures for business in Canada will be found in Table 12, p. 1105.

Item	New Policies Effected (net)	Net Insurance in Force Dec. 31	Net Premiums Received	Net Claims Paid
	\$	\$	\$	\$
Canadian Life Companies—				
Dominion.....	602,092,630	4,530,325,046	170,752,507	68,811,455
Provincial.....	1	1	1	1
Canadian Fraternal Societies—				
Dominion.....	10,279,349	94,089,143	1,350,646	2,387,813
Provincial.....	1	1	1	1
<b>Totals.....</b>	<b>612,371,979</b>	<b>4,624,414,189</b>	<b>172,103,153</b>	<b>71,199,268</b>

<sup>1</sup> None reported.**25.—Grand Total of All Life Insurance Business in Canada and of Canadian Organizations Abroad, 1947**

Item	New Policies Effected (net)	Net Insurance in Force Dec. 31	Net Premiums Received	Net Claims Paid
	\$	\$	\$	\$
Canadian Life Companies—				
Dominion.....	1,615,400,815	12,494,510,337	369,017,870	133,728,072
Provincial.....	83,639,507	331,819,377	7,819,765	1,508,823
Canadian Fraternal Societies—				
Dominion.....	33,857,638	269,291,155	4,017,852	5,234,225
Provincial.....	20,226,196	157,372,512	3,338,184	2,127,453
British life companies.....	35,808,762	238,614,767	6,061,739	2,854,013
Foreign life companies.....	404,138,540	3,697,458,162	100,160,274	34,474,219
Foreign fraternal companies.....	15,679,437	111,138,267	2,706,402	1,262,284
<b>Grand Totals.....</b>	<b>2,208,750,895</b>	<b>17,300,204,577</b>	<b>493,122,086</b>	<b>181,189,089</b>

**Section 3.—Casualty Insurance**

Since 1875, the growth of casualty insurance business has been steady. The report of the Superintendent of Insurance for the calendar year 1880 shows that the number of companies licensed for the transaction of accident, guarantee, plate glass and steam-boiler insurance—the only four classes of casualty insurance then transacted—was 5, 3, 1 and 1, respectively. The report for the year 1947 shows that casualty insurance in Canada now includes various forms of accident and 23 other classes of insurance transacted by companies with Dominion registration. In 1880, 10 companies transacted casualty insurance, but in 1947 such insurance was issued by 259 companies, of which 55 were Canadian, 70 British and 134 foreign; of these, 199 companies also transacted fire insurance. In addition, 21 fraternal orders or societies carried on accident and sickness insurance as well as life insurance business and 3 fraternal orders or societies carried on accident or sickness insurance only.

Table 27, which shows the division of business in this field between federal and provincial licensees, indicates that, as in the cases of fire and life insurance, the bulk of the business (about 90 p.c. in this case) is transacted by companies with Dominion registration.

Since, as indicated above, most of the companies carrying on casualty insurance in Canada also transact fire insurance, their assets, liabilities, income and expenditures are included in the financial statistics of fire insurance companies given in Section 1, Subsection 3, of this Chapter. Table 28 gives similar figures for the total casualty business of Canadian companies, and for the casualty business in Canada of British

and foreign companies, whose transactions are confined to insurance other than fire and life. In 1947, there were 11 Canadian, 6 British and 53 foreign companies whose operations were limited to the same field.

During the war years, automobile insurance showed a favourable experience with a loss ratio of around 45 p.c. This ratio was slightly lower than for the pre-war years, the result of lessened traffic, but since the end of hostilities the experience tends to be less favourable and now stands around 52 p.c.

Hail insurance in 1946 showed a loss ratio of 25 p.c. but in 1947 this had increased to 67 p.c.

Marine insurance showed a very large increase in Canada during the war years and substantial profits resulted. The results for the years 1941 to 1947, inclusive, were as follows:—

Year	Premiums	Claims Incurred	Under-writing Profits
	\$	\$	\$
1941.....	6,011,922	2,781,190	1,694,470
1942.....	14,295,543	7,983,963	3,855,415
1943.....	10,061,059	4,931,286	3,449,873
1944.....	6,754,361	2,172,418	3,243,889
1945.....	5,978,274	2,995,704	1,704,367
1946.....	5,655,392	2,232,701	2,084,412
1947.....	7,932,404	4,529,161	1,031,313

This class of insurance will, no doubt, figure more largely in the business of companies in post-war years than it did before 1939.

## 26.—Casualty Insurance in Canada, by Companies operating under Dominion Registration, 1947

Class of Business	Number of Companies, 1947			Aggregate Experience During Period Transacted		
	Canadian	British	Foreign	Years Transacted	Net Premiums Written	Claims Incurred
				No.	\$	\$
Accident.....	..	..	..	50	92,299,497	43,476,664
Accident—						
Personal.....	36	37	24	23	78,230,084	31,017,007
Public liability (other until 1941).....	34	38	23	23	52,172,253	17,264,493
Employers' liability (employers' liability and workmen's compensation until 1941).....	31	37	21	23	43,051,107	25,243,366
Combined accident and sickness.....	14	10	16	34	117,099,803	71,707,574
Aircraft (aviation until 1941).....	3	9	20	20	4,987,273	2,863,044
Automobile.....	36	55	87	38	457,686,286	236,018,391
Boiler—						
Boiler (steam boiler until 1941).....	7	7	5	71	18,478,318	1,696,244
Machinery (electrical machinery until 1941).....	4	1	5	26	6,024,511	1,707,901
Credit.....	—	—	2	28	6,288,524	2,098,604
Crop.....	—	—	—	1	12,268	40,091
Earthquake.....	15	23	37	23	246,754	15,088
Explosion <sup>1</sup> .....	—	—	—	9	1,195,107	12,189
Explosion (riot and civil commotion until 1941).....	15	19	40	15	1,769,524	30,315
Falling aircraft.....	—	3	1	16	21,690	8,550
Forgery.....	15	3	4	29	1,295,405	317,740
Fraud.....	—	—	—	18	315,992	99,688
Guarantee (not separated into fidelity and surety prior to 1921).....	—	—	—	47	13,452,616	3,811,867
Fidelity (since 1921).....	34	25	20	26	31,497,244	8,809,704
Surety (since 1921).....	33	24	17	26	22,702,550	3,833,707
Hail.....	5	3	23	38	93,391,429	60,763,517
Inland transportation.....	28	41	57	51	31,827,730	12,164,198
Live stock.....	2	1	2	40	2,541,532	1,598,119
Personal property.....	34	51	59	18	48,200,486	28,369,820
Plate glass.....	32	38	16	73	21,332,292	9,630,786

<sup>1</sup> Explosion inherent since 1932 included with fire.

### 26.—Casualty Insurance in Canada, by Companies operating under Dominion Registration, 1947—concluded

Class of Business	Number of Companies, 1947			Aggregate Experience During Period Transacted		
	Canadian	British	Foreign	Years Transacted	Net Premiums Written	Claims Incurred
				No.	\$	\$
Real property (property prior to 1941)...	9	16	24	11	2,712,819	823,109
Sickness.....	26	24	12	52	69,350,943	42,199,938
Sprinkler leakage.....	—	—	—	14	844,301	427,673
Sprinkler leakage <sup>1</sup> .....	5	6	20	24	325,425	103,647
Theft (burglary prior to 1941).....	35	34	23	55	37,637,069	14,237,580
Title (1907-1916).....	—	—	—	10	11,252	—
Weather.....	—	—	3	33	700,689	424,804
Windstorm (tornado prior to 1941).....	22	18	45	40	4,933,977	2,690,581
<b>Totals.....</b>	...	...	...	...	<b>1,262,636,750</b>	<b>623,506,062</b>

<sup>1</sup> Sprinkler leakage business of fire companies was grouped with fire business from 1923 to 1940, but has been shown separately from their fire business since 1940 when written under a separate policy.

### 27.—Casualty Insurance Premiums and Claims in Canada, by Class of Business, 1947

NOTE.—Less all reinsurance for Canadian companies and registered or licensed reinsurance only for British and foreign companies.

Class of Business	Dominion Registered Companies	Provincial Licensees			Lloyds	Grand Total
		Within Provinces by which they are Incorp.	In Provinces other than those by which Incorp.	Total Provincial Licensees		
NET PREMIUMS WRITTEN						
	\$	\$	\$	\$	\$	\$
Accident—						
Personal.....	5,601,529	3,536	128	3,664	303,322	5,908,515
Public liability.....	5,717,414	106,722	4,204	110,926	348,838	6,177,178
Employers' liability.....	1,991,698	322,186	—	322,186	168,935	2,482,819
Accident and sickness combined.....	18,418,365	190,438	56,227	246,665	9,777	18,674,807
Aircraft.....	666,119	—	—	—	591,261	1,257,380
Automobile.....	47,828,207	3,331,044	1,054,103	4,385,147	3,967,604	56,180,958
Boiler—(a) Boiler.....	1,191,555	—	—	—	214,684	1,406,239
(b) Machinery.....	590,057	27,788	19,837	47,625	144,565	782,247
Credit.....	254,938	—	—	—	—	254,938
Earthquake.....	40,073	67	—	67	18,618	58,758
Explosion.....	—557	125	15	140	88,219	87,802
Falling aircraft.....	64	—	—	—	—	64
Forgery.....	50,244	—	—	—	2,537	52,781
Guarantee fidelity.....	1,459,977	97,208	396	97,604	306,793	1,864,374
Guarantee surety.....	1,184,400	—	—	—	46,208	1,230,608
Hail.....	4,901,933	302,421	—	302,421	40,641	5,244,995
Inland transportation.....	2,692,748	7,293	1,692	8,985	213,914	2,915,647
Live stock.....	91,921	—	—	—	61,077	152,998
Personal property.....	10,127,592	16,951	6,625	23,576	74,882	10,226,050
Plate glass.....	900,562	81,981	282	82,263	103	982,928
Real property.....	392,419	4,901	155	5,056	26,424	423,899
Sickness.....	4,911,258	4,890	291	5,181	34,971	4,951,410
Sprinkler.....	22,812	—	—	—	1,114	23,926
Theft.....	2,597,954	36,866	2,367	39,233	84,127	2,721,314
Weather.....	16,910	208,668	—	208,668	1,275	226,853
Windstorm.....	237,119	—	—	—	103	237,222
Totals.....	111,887,311	4,743,085	1,146,322	5,889,407 <sup>1</sup>	6,749,992	124,526,710 <sup>1</sup>

For footnotes, see end of table, p. 1119.



**27.—Casualty Insurance Premiums and Claims in Canada, by Class of Business, 1947—concluded**

Class of Business	Dominion Registered Companies	Provincial Licensees			Lloyds	Grand Total
		Within Provinces by which they are Incorp.	In Provinces other than those by which Incorp.	Total Provincial Licensees		
NET CLAIMS INCURRED						
	\$	\$	\$	\$	\$	\$
Accident—						
Personal.....	1,723,177	2,950	—	2,950	184,123	1,910,250
Public liability.....	1,819,040	57,232	88	57,320	122,602	1,998,962
Employers' liability.....	572,743	116,173	—	116,173	105,745	794,661
Accident and sickness combined.....	10,929,789	88,606	22,294	110,900	1,352	11,042,041
Aircraft.....	599,012	—	—	—	466,695	1,065,707
Automobile.....	24,870,148	1,594,761	549,114	2,143,875	2,169,927	29,183,950
Boiler—	157,875	—	—	—	227,779	385,654
(b) Machinery.....	173,155	5,825	—22	5,803	87,602	266,560
Credit.....	8,585	—	—	—	—	8,585
Earthquake.....	222	—	—	—	—	222
Explosion.....	449	—	—	—	888	1,337
Falling aircraft.....	—	—	—	—	—	—
Forgery.....	32,622	—	—	—	1,820	34,442
Guarantee fidelity.....	193,147	—	—	—	128,540	321,687
Guarantee surety.....	128,651	2,252	216	2,468	295	128,946
Hail.....	3,278,960	145,087	—	145,087	24,059	3,448,106
Inland transportation.....	1,195,721	2,027	—1,181	846	127,262	1,323,829
Live stock.....	37,818	—	—	—	29,395	67,213
Personal property.....	6,044,001	7,384	10,693	18,077	8,341	6,070,419
Plate glass.....	428,652	38,592	117	38,709	287	467,648
Real property.....	112,915	2,918	50	2,968	1,179	117,062
Sickness.....	2,158,731	161	52	213	1,000	2,159,944
Sprinkler.....	7,295	—	—	—	—	7,295
Theft.....	878,154	13,750	—	13,750	189,398	1,081,302
Weather.....	10,916	128,850	—	128,850	6,375	146,141
Windstorm.....	125,447	—	—	—	—	125,447
Totals.....	55,487,225	2,206,568	581,421	2,787,989 <sup>2</sup>	3,884,664	62,159,878 <sup>2</sup>

<sup>1</sup> Excludes \$4,875,834 premiums for fraternal benefit societies for accident, sickness and funeral business.

<sup>2</sup> Excludes \$3,445,991 losses for fraternal benefit societies for accident, sickness and funeral business.

**28.—Assets and Liabilities, Income and Expenditure of Canadian, British and Foreign Casualty Insurance Companies, 1947**

Companies	Assets	Liabilities	Excess of Assets Over Liabilities	Income	Expendi- ture	Excess of Income Over Expendi- ture
	\$	\$	\$	\$	\$	\$
Canadian (in all countries)...	13,180,272	6,249,104 <sup>1</sup>	6,931,168	8,078,426	7,124,471	953,955
British (in Canada).....	1,567,434	897,209	670,225	1,202,332	1,002,443	199,889
Foreign (in Canada).....	41,396,813	23,580,628	17,816,185	35,073,755	30,211,949	4,861,806
<b>Totals.....</b>	<b>56,144,519</b>	<b>30,726,941</b>	<b>25,417,578</b>	<b>44,354,513</b>	<b>38,338,863</b>	<b>6,015,650</b>

<sup>1</sup> Not including capital stock.

### Section 4.—Government Insurance

In addition to the insurance provided by private insurance companies various types of government insurance schemes have been adopted in recent years by the Federal and Provincial Governments. This Section deals briefly with the principal schemes now in effect.

Only those schemes dealing with the types of insurance covered by this Chapter, viz., fire, life and casualty are treated here. Information on unemployment insurance, health insurance, export credits insurance, etc., will be found in the Chapters on Labour, Health and Welfare, Foreign Trade, etc.

**Veterans Insurance.\***—The Veterans Insurance Act which came into force on Feb. 20, 1945, is a Federal Government Statute which provides that veterans who were engaged in service during the Second World War, the widows and widowers of veterans, disability pensioners under the Pension Act in receipt of pensions relating to the War, most members of the Active Forces, and certain merchant seamen, may contract with the Government of Canada for life insurance, usually without medical examination. The period of eligibility ends six years after the coming into force of the Act or six years after discharge from Service, whichever is later. For the Active Forces generally it will end on Apr. 1, 1952, and for the eligible merchant seamen it will end on Feb. 20, 1951.

The amount of insurance may be any multiple of \$500 up to a maximum of \$10,000. The plans of insurance available are 10-payment life, 15-payment life, 20-payment life, and life with premiums payable until age 65 or age 85. The policies are non-participating.

Premiums on veterans insurance may be paid monthly, quarterly, semi-annually or annually. They may be paid in cash or from re-establishment credit or by deduction from any pension granted under the Pension Act. The policy contracts include a waiver-of-premium disability provision. No extra premiums are charged for residence, travel or occupational hazards.

At the end of the second policy year a liberal cash value is available. It may be used alternatively to provide reduced paid-up insurance or extended term insurance. A veteran's insurance policy is not assignable, nor is a loan value granted.

The maximum amount of insurance money that will be paid in a lump sum at death is \$1,000; the balance must be paid to the beneficiary as an annuity certain or as a life annuity with or without a guaranteed period.

\* Revised by C. F. Black, Superintendent, Veterans Insurance, Department of Veterans Affairs, Ottawa.

#### 29.—Summary Statistics of Veterans Insurance, Years Ended Mar. 31, 1946-49

Year Ended Mar. 31—	Insurance Issued During Year		Insurance in Force at End of Year		Death Claims Approved During Year	
	No.	\$	No.	\$	No.	\$
1946.....	4,013	11,971,500	3,914	11,708,550	1	500
1947.....	6,442	18,783,000	10,077	29,658,000	17	55,500
1948.....	8,825	24,599,000	18,433	52,594,612	38	100,500
1949.....	4,615	14,074,500	22,293	63,836,743	91	245,500

**Provincial Insurance Schemes.**—The Province of Saskatchewan conducts fire, fidelity and surety insurance but not life insurance. This is done under the terms of the Saskatchewan Government Insurance Act, 1944.

In the Province of Alberta, life insurance is provided through the Life Insurance Company of Alberta, a Crown Company that is not an emanation from the Provincial Government. Similarly, another Crown Company, the Alberta General Insurance Company, provides all other kinds of insurance except life, accident and sickness. The Alberta Hail Board provides farmers with insurance for their crops against damage by hail.

Since the insurance statistics presented in this Chapter are limited to those of companies registered with the Federal Government to do business all over Canada and details of the business of provincial companies are not covered except for the inclusion of total figures in the summary Tables 1 and 12, the same principle is followed in this Section and for detailed information the reader is referred to:—

- (a) The Superintendent of Insurance,  
Insurance Branch,  
Department of the Provincial Secretary for Saskatchewan,  
Regina, Saskatchewan.
- (b) The Superintendent of Insurance,  
Department of the Provincial Secretary for Alberta,  
Edmonton, Alberta.



## CHAPTER XXVII.—DEFENCE OF CANADA\*

### CONSPPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

### Section 1.—The Department of National Defence

In 1948-49 the strength of all three branches of the Armed Forces was substantially increased toward their peacetime establishments, and the program of organizing and training extensive reserve forces was continued.

Under a single Minister, charged with responsibility for all matters relating to defence, the Department continued a policy which included: (1) the adoption of a unified defence program to meet agreed strategic needs; (2) a single defence budget under which funds and resources would be allocated in accordance with the program; (3) the elimination of duplication of services; (4) consistent and equitable personnel policies; (5) greater emphasis on defence research and closer co-ordination with other government departments and with war industry.

Under direction of the Minister, Service command is exercised by the heads of the Services concerned.

In 1948-49 progress of the new defence organization was primarily along administrative lines, in keeping with an ever-changing international situation. Co-operation with other nations in matters of defence became increasingly effective. In all matters of international defence relations the first aim of Canadian policy was to prevent war.

The amalgamation of the three Departments and the co-ordination of the three Services began with the establishment of a single National Defence Headquarters at Ottawa. Within this Headquarters, allied components of the Navy, Army and Air Force were interwoven wherever compatible with the interests of efficiency and economy.

Councils and committees that now function with direct relation to the Department of National Defence and the unification program include:—

- (1) **Defence Council.**—*Composition*—Minister of National Defence (Chairman), Parliamentary Assistant, Deputy Minister, Associate Deputy Ministers (two), Service Chiefs of Staff and Chairman of Defence Research Board. *Object*—advising the Minister with regard to administrative matters of inter-Service concern affecting the Department as a whole or otherwise.
- (2) **Chiefs of Staff Committee.**—*Composition*—Service Chiefs of Staff (three), Chairman of Defence Research Board and, when matters of general interest are under consideration, the Deputy Minister, the Under

\* This Chapter, with the exception of the material on the Industrial Defence Board, was revised under the direction of C. M. Drury, Deputy Minister, Department of National Defence, Ottawa.

Secretary of State for External Affairs and the Secretary to the Cabinet attend. *Object*—planning, training and general supervision of the three Services; preparation of joint reports appreciating the military situation.

- (3) **Personnel Members Committee.** — *Composition* — Adjutant-General (Army), Chief of Naval Personnel, Air Member for Personnel (R.C.A.F.), Associate Deputy Minister and a Defence Research Board representative (chairmanship rotates among first three members named). *Object* — joint administration of personnel, medical and dental services, pay, pensions and allied matters; general aim is to ensure that, where feasible, personnel of the Navy, Army and Air Force are governed by the same regulations.
- (4) **Principal Supply Officers' Committee.** — *Composition* — principal supply officers from each Service, a Defence Research Board representative and appropriate Associate Deputy Minister (chairmanship rotates among Service members). *Object* — co-ordination and unification of supply and equipment and matters of procurement.
- (5) **Inter-Service Recruiting Committee.** — *Composition* — by Service appointment as required (chairmanship rotates). *Object* — planning campaigns and sustaining recruiting programs for the active and reserve components of the Armed Forces.

**The Defence Research Board of Canada.** — The Defence Research Board was set up to operate as a specialized fourth Service to co-ordinate scientific research of defence significance (see Subsection 4).

**Civil Defence.** — In October, 1948, the Minister of National Defence appointed a Co-ordinator of Civil Defence with the task of preparing a Canadian plan. Informal discussions were held with the Provincial Governments and the various national organizations and the plans and organizations of the countries of Western Europe and the United States were studied.

An interdepartmental committee has been formed to assist in the co-ordination of the federal planning. The main principle is that all departments and agencies are responsible for planning all phases which are extensions of the normal functions.

At an early stage in his planning the Co-ordinator of Civil Defence became interested in the standardization of fire-fighting equipment and has been instrumental in initiating a standardization program in Canada.

### **Liaison Abroad**

For the purpose of liaison and furtherance of international co-operation on defence, Canada maintains: (1) United States-Canadian Permanent Joint Board on Defence; (2) Canadian Joint Staff (Washington) representing the three Services; (3) Canadian Joint Liaison Officers, London, representing the three Services; and (4) Service Attachés in various countries throughout the world.

## **Section 2.—The Armed Forces and the Defence Research Board**

The three Armed Services of Canada—the Royal Canadian Navy, the Canadian Army and the Royal Canadian Air Force—are closely consolidated under single ministerial direction but still operate as three distinct defence Services. Each is headed by a Chief of Staff who is responsible to the Minister of National Defence. Many aspects of administration and training have been amalgamated or co-ordinated in the interests of efficiency and economy.

Terms of service for recruits in each of the Armed Services have been standardized as much as possible. The entire pay structure for comparable ranks has been made uniform. Plans are progressing for standardization of uniforms and equipment wherever feasible. Requirements for recruits and length of enlistment periods vary somewhat in accordance with the demands peculiar to each Service. Generally, educational and physical requirements are the same.

The strengths of the active (permanent) components of the Armed Forces as at Oct. 31, 1949, were: Navy 9,047; Army 19,878; and Air Force 15,941. Table 1 shows rates of pay for the Armed Forces and includes the increases made effective in October, 1948.

**1.—Monthly Rates of Pay and Allowances for Members of the Active Forces, as at Sept. 1, 1949<sup>1</sup>**

Rank or Rating			Basic Rate	Subsistence <sup>2</sup>	Total	After 3 Years in Rank <sup>3</sup>	After 6 Years in Rank <sup>3</sup>
Navy	Army	Air Force	\$	\$	\$	\$	\$
Ordinary Seaman (on entry).....	Private (on entry)	Aircraftman 2nd Class.	68	54	122	...	...
Ordinary Seaman (trained).....	Private (trained)	Aircraftman 1st Class.	72	54	126	...	...
Able Seaman.....	Private 1st Class	Leading Aircraftman	79	54	133	136	139
Leading Seaman.....	Corporal.	Corporal.	88	54	142	145	148
Petty Officer 2nd Class.....	Sergeant.	Sergeant.	101	60	161	166	171
Petty Officer 1st Class.....	Staff Sergeant.	Flight Sergeant.	116	65	181	186	191
Chief Petty Officer 2nd Class.....	Warrant Officer 2nd Class.	Warrant Officer 2nd Class.	131	65	196	201	206
Chief Petty Officer 1st Class.....	Warrant Officer 1st Class.	Warrant Officer 1st Class.	146	70	216	221	226
Midshipman (Naval Service only).....	...	...	92	54	146	...	...
Acting Sub-Lieutenant	Second Lieutenant	{Flight Cadet <sup>4</sup> Pilot Officer }	153	55	208	...	...
Sub-Lieutenant.....	Lieutenant.	Flying Officer.	181	73	254	269	284
Warrant Officer (Naval Service only)	...	...	198	73	271	286	301
Officers in all Services Commissioned from Warrant Rank.			203	73	276	291	306
Lieutenant.....	Captain.	Flight Lieutenant.	213	73	286	301	316
Lieutenant-Commander.....	Major.	Squadron Leader.	278	83	361	376	391
Commander.....	Lieutenant-Colonel.	Wing Commander.	323	88	411	436	461
Captain.....	Colonel.	Group Captain.	434	94	528	563	598
Commodore.....	Brigadier.	Air Commodore.	578	98	676	...	...
Rear-Admiral.....	Major-General.	Air Vice-Marshal.	660	100	760	...	...
Vice-Admiral.....	Lieutenant-General.	Air Marshal.	747	102	849	...	...

<sup>1</sup> Excluding (a) marriage allowances for men, \$30 per month, and for officers, \$40 per month, subject to reduction of \$10 per month for permanent married quarters or \$2.50 per month for temporary married quarters; (b) trade pay for Group 1 at \$4 per month, for Group 2 at \$12 per month, for Group 3 at \$20 per month, and for Group 4 at \$28 per month. <sup>2</sup> Granted when rations and quarters are not provided.

<sup>3</sup> Including subsistence allowance.

<sup>4</sup> Receives \$30 per month risk allowance when engaged in flying duties.

### Subsection 1.—The Royal Canadian Navy

**Administration.**—The administrative and operational headquarters of the Royal Canadian Navy is located at Naval Headquarters, Ottawa, Ont. The Chief of the Naval Staff is responsible for policy and direction in all matters



concerning the Royal Canadian Navy. He is advised by the Naval Board, consisting of four senior officers who are heads of the main branches of Naval activity—Staff, Personnel, Supply and Technical, and Air.

The Naval Staff, which deals with the organization and operation of the Royal Canadian Navy, is composed of the heads of the various Staff Directorates—Operations, Plans, Intelligence, Communications, Air, Weapons and Tactics.

The Navy maintains operational bases and training centres at Halifax, N.S., and Esquimalt, B.C. In command of all ships and establishments in these areas are the Flag Officer, Atlantic Coast, and the Flag Officer, Pacific Coast, respectively.

External representation includes the Naval Member of the Canadian Joint Staff, Washington, D.C., U.S.A., and Senior Canadian Naval Liaison Officer, London, England.

**The Fleet.**—On Feb. 25, 1947, the Minister of National Defence announced the constitution of the Royal Canadian Navy's peacetime fleet. Though reduced from the 378 warships served by more than 90,000 men in the spring of 1945, it represented a fleet far superior to anything previously maintained by Canada in peacetime. Designed as a balanced two-ocean organization, it was built for the first time in Canadian naval history around big ships, and made allowance for the increasing importance of air power.

The keynote of the following period has been that of intensive training, with particular emphasis on training afloat. Operational ships have put in a notable amount of sea time, from the summer local cruises, designed for the instruction of Reserves with only two weeks to spend on the water, to far-flung movements combined with fleet exercises, and on occasion, co-operation with ships of the Royal Navy and the United States Navy.

The largest unit of the new force is a light fleet aircraft carrier of 18,000 tons. Two 8,000-ton six-inch gun cruisers, seven large Tribal Class destroyers and four lighter destroyers make up the main portion of the fleet. Six frigates and nine Algerine Type minesweepers are also maintained, as well as four auxiliary vessels and four Fairmile motor launches. The following ships are currently in commission or are being retained in reserve:—

Light Fleet Aircraft Carrier—  
H.M.C.S. *Magnificent*

Cruisers—  
H.M.C.S. *Ontario*  
H.M.C.S. *Uganda*

Tribal Class Destroyers—  
H.M.C.S. *Iroquois*  
H.M.C.S. *Huron*  
H.M.C.S. *Haida*  
H.M.C.S. *Micmac*  
H.M.C.S. *Nootka*  
H.M.C.S. *Cayuga*  
H.M.C.S. *Athabaskan*

"V" Class Destroyers—  
H.M.C.S. *Sioux*  
H.M.C.S. *Algonquin*

Crescent Class Destroyers—  
H.M.C.S. *Crescent*  
H.M.C.S. *Crusader*

Frigates—  
H.M.C.S. *St. Stephen*  
H.M.C.S. *Antigonish*  
H.M.C.S. *Swansea*

Frigates—*concluded*

H.M.C.S. *La Hullose*  
H.M.C.S. *Beacon Hill*  
H.M.C.S. *New Waterford*

Algerine Type Minesweepers—  
H.M.C.S. *New Liskeard*  
H.M.C.S. *Portage*  
H.M.C.S. *Wallaceburg*  
H.M.C.S. *Fort Francis*  
H.M.C.S. *Kapuskasing*  
H.M.C.S. *Rockcliffe*  
H.M.C.S. *Oshawa*  
H.M.C.S. *Sault Ste. Marie*  
H.M.C.S. *Winnipeg*

Auxiliary Vessels—  
H.M.C.S. *Lloyd George*  
H.M.C.S. *Llewellyn*  
H.M.C.S. *Revelstoke*  
H.M.C.S. *Cedarwood*

Motor Launches—  
H.M.C. M. L. 116  
H.M.C. M. L. 121  
H.M.C. M. L. 106  
H.M.C. M. L. 124

The aircraft carrier, H.M.C.S. *Magnificent* is of the Colossus Class, with a flight deck 790 ft. long and a speed of 25 knots. Though Belfast-built she has a number of Canadian innovations, including a system of cafeteria messing for feeding a crew of more than 1,000. Sea Fury single-seater fighters and Firefly V anti-submarine two-seaters constitute her aircraft. The former are among the fastest propeller-driven aircraft in the world, while the Fireflies are specially equipped for anti-submarine duties. Royal Canadian Navy airmen are trained to wings standard by the Royal Canadian Air Force but deck landing and other advanced instruction are provided by the Navy.

H.M.C.S. *Shearwater*, commissioned in December, 1948, at Dartmouth, N.S., is the shore base for the 18th and 19th Carrier Air Groups, the Training Air Group, Fleet Requirement Unit and schools for Air Branch personnel. Formerly administered by the Royal Canadian Air Force, *Shearwater* was turned over to the Royal Canadian Navy just prior to commissioning.

The 8,000-ton cruisers, 500 ft. long, mount nine six-inch guns and heavy anti-aircraft armament. They carry crews of nearly 800 each and have a speed of more than 30 knots. H.M.C.S. *Ontario*, completed near the end of 1945, has since been completely refitted and is one of the best-equipped ships of her class.

The Tribals are of about 2,000 tons, and are the most heavily armed vessels of their type. Three of them, British-built, saw much action in the closing years of the War. These are, in order of completion, H.M.C.S. *Iroquois*, H.M.C.S. *Huron*, and H.M.C.S. *Haida*. The remaining four are products of Canadian shipbuilders and are the first turbine warships ever built in Canada.

H.M.C.S. *Crescent* and H.M.C.S. *Crusader* are smaller destroyers than the Tribals, displacing 1,700 tons. They are on loan from the Royal Navy.

H.M.C.S. *Algonquin* and H.M.C.S. *Sioux* are Canadian Fleet "V" class destroyers. They displace 1,700 tons and, while comparatively new ships, have battle records to their credit.

The frigates and Algerine minesweepers, war-developed as anti-submarine escort vessels, displace 1,445 and 1,000 tons, respectively.

The allocation of major units maintained in commission calls for an aircraft carrier and three destroyers on the Atlantic coast, based at Halifax, N.S., and a cruiser and three destroyers operating from the Pacific base at Esquimalt, B.C. Frigates and Algerines are commissioned with an eye on training requirements, the greater number being called for in the summer months, when the flow of Reserves, coming from Naval Divisions all across Canada for their annual sea time, reaches its peak.

In 1949, the Royal Canadian Navy embarked on the largest ship-building program in its peacetime history. Contracts were awarded for the construction of a modern icebreaker, three anti-submarine escort vessels of latest design, four coastal minesweepers and a trawler-type gate vessel.

**Training.**—While specialized training for both officers and men prior to the War was almost entirely dependent on Royal Navy facilities, the development and modernization of the Halifax and Esquimalt bases, plus the facilities made available by the increased Canadian fleet, have brought the Royal Canadian Navy to a position where, with the exception of a very few highly specialized qualifications, it handles all its own instructional activity.

H.M.C.S. *Cornwallis*, at Cornwallis, N.S., the largest training base in the British Commonwealth during the War, was recommissioned May 1, 1949, to handle the basic instruction of all Permanent Force new entries.

During the summer of 1949, the Permanent Force of the Royal Canadian Navy reached its interim authorized complement of 9,047 officers and men. Recruits, on enlistment, sign a five-year agreement, with succeeding periods of the same length where a man wishes to continue until he is pensionable.

Officers of the Royal Canadian Navy come from three main sources: (1) the Canadian Services College, Royal Roads, B.C., and the Canadian Services College, Royal Military College, Kingston, Ont.; (2) direct entry of certain specialists from the universities; (3) promotion from the ranks. In addition, a number of short term commissions are held by naval air crew personnel.

**Operations.**—While the fleet's primary peacetime role is the provision of sea training for officers and men of the Royal Canadian Navy and the R.C.N. (Reserve), a specially equipped frigate is currently engaged in weather patrol duties and other units carry out operational missions from time to time.

H.M.C.S. *St. Stephen*, based at Halifax, shares with ships of other nations the responsibility for providing weather reports and other navigational aids for transatlantic air traffic. This international weather reporting service the frigate carries out on "Station Baker", a point midway between Greenland and Labrador, in Davis Strait.

Another operational commitment during 1949 was a cruise to the Far East by the destroyer, H.M.C.S. *Crescent*. The *Crescent* was at Shanghai, Nanking and Hong Kong and stood by to evacuate Canadian civilians in the event of an emergency arising out of disturbed conditions in China.

H.M.C.S. *Cedarwood*, an auxiliary vessel based at Esquimalt, B.C., joined company with the U.S.S. *Epcos (R)-857*, an experimental sea-going laboratory, and the United States submarine, *Baya*, also a sea-going laboratory, for a two-week survey of oceanographic conditions off the Aleutian Islands early in September, 1949. H.M.C.S. *Cedarwood* also carried out oceanographic duties along the Pacific Coast at other periods during the year. On the Atlantic Coast, similar duties are a continuing commitment of the Algerine minesweeper, H.M.C.S. *New Liskeard*.

Two naval vessels are at present on loan to the Department of Mines and Technical Surveys and a third to the Department of Transport.

**Royal Canadian Navy (Reserve).**—All Canadian Naval Reserves are incorporated in a single body, the Royal Canadian Navy (Reserve). Twenty Naval Divisions are established in the following centres:—

Halifax, N.S., H.M.C.S. "Scotian"  
 Charlottetown, P.E.I.,  
     H.M.C.S. "Queen Charlotte"  
 Saint John, N.B., H.M.C.S. "Brunswick"  
 Quebec, Que., H.M.C.S. "Montcalm"  
 Montreal, Que., H.M.C.S. "Donnacona"  
 Ottawa, Ont., H.M.C.S. "Carleton"  
 Toronto, Ont., H.M.C.S. "York"  
 Kingston, Ont., H.M.C.S. "Cataraqui"  
 Hamilton, Ont., H.M.C.S. "Star"  
 Windsor, Ont., H.M.C.S. "Hunter"

London, Ont., H.M.C.S. "Prevost"  
 Port Arthur, Ont., H.M.C.S. "Griffon"  
 Winnipeg, Man., H.M.C.S. "Chippawa"  
 Regina, Sask., H.M.C.S. "Queen"  
 Saskatoon, Sask., H.M.C.S. "Unicorn"  
 Calgary, Alta., H.M.C.S. "Tecumseh"  
 Edmonton, Alta., H.M.C.S. "Nonsuch"  
 Vancouver, B.C., H.M.C.S. "Discovery"  
 Victoria, B.C., H.M.C.S. "Malahat"  
 Prince Rupert, B.C.,  
     H.M.C.S. "Chatham"

Plans were being completed in September, 1949, for the H.M.C.S. "Cabot" Division at St. John's, Nfld.



These Naval Divisions are not only the local training centres for Reserves, but are recruiting offices for the Royal Canadian Navy. Drawing heavily on surplus war equipment for basic training gear, and making use in many instances of new buildings, the Divisions are well fitted to meet modern high instructional standards. Each has been allocated responsibility for specialized training in various phases of naval activity—gunnery, harbour defence, aviation, communications, etc.—and Royal Canadian Navy officers and men have been provided as instructors. Each Division is commanded by a R.C.N. (R) Active List officer, under whom is a Royal Canadian Navy staff officer.

More than 3,000 officers and men of the R.C.N. (R), including members of the University Naval Training Divisions, took part in more than 75 separate cruises in H.M.C. ships during the May–October, 1949, training period.

Apart from annual training, officers and men of the R.C.N. (R) may perform voluntary service and special naval duty as required by Naval Headquarters. In the latter case they take the places of Permanent Force officers and men where vacancies exist in complement.

There are two types of enlistment in the R.C.N. (R). Officers may be on either the Active List or the Retired List. Those on the former must take periodic training, but retired officers may volunteer for training if they so desire. Both classes are liable to mobilization in a time of emergency.

Men are placed on Active or Emergency Lists and are governed by the same conditions as apply to officers. They sign on for five-year periods.

**University Naval Training Divisions.**—Divisions for naval training are established at 32 universities and colleges across Canada: Prince of Wales College, St. Dunstan's College, Acadia University, Dalhousie University, Nova Scotia Technical College, St. Francis Xavier University, University of King's College, University of St. Mary's College, Mount Allison University, University of New Brunswick, College Saint-Alexandre de la Gatineau, École Polytechnique, Laval University, McGill University, Sir George Williams College, University of Montreal, Assumption College, Carleton College, McMaster University, Ontario Agricultural College, Ottawa University, Queen's University, St. Patrick's College, University of Toronto, University of Western Ontario, Lakehead Technical Institute, University of Manitoba, University of Saskatchewan, Regina College, University of Alberta, University of British Columbia and Victoria College.

The University Naval Training Divisions program offers undergraduates of all faculties four years of instruction leading to a commission in the Royal Canadian Navy and the Royal Canadian Navy (Reserve). It is designed to produce officers in all branches and, to this end, offers training both ashore and afloat.

Training is taken at Naval Divisions and at universities during the academic year. Summer vacation training is taken both in the schools at the coasts and in H.M.C. ships.

**The Royal Canadian Sea Cadets.**—The Royal Canadian Sea Cadets consists of 80 authorized corps, sponsored by the Navy League of Canada and trained and supervised by the Royal Canadian Navy. The authorized strength is 10,000 cadets between the ages of 14 and 18 years. During a period of two summer months, at five different camps maintained for their training, 4,000 cadets averaged 14 days each.

## Subsection 2.—The Canadian Army

**Command.**—The system of command of the present peacetime Canadian Army includes:—

- Army Headquarters*—Ottawa, Ont. (subdivided)
  - The General Staff Branch
  - The Adjutant-General Branch
  - The Quartermaster-General Branch\*
- Western Command*—Headquarters, Edmonton, Alta.
  - British Columbia Area—Headquarters, Vancouver, B.C.
- Prairie Command*—Headquarters, Winnipeg, Man.
  - Saskatchewan Area—Headquarters, Regina, Sask.
- Central Command*—Headquarters, Oakville, Ont.
  - Western Ontario Area—Headquarters, London, Ont.
  - Eastern Ontario Area—Headquarters, Kingston, Ont.
- Quebec Command*—Headquarters, Montreal, Que.
  - Eastern Quebec Area—Headquarters, Quebec City, Que.
- Eastern Command*—Headquarters, Halifax, N.S.
  - New Brunswick Area—Headquarters, Fredericton, N.B.
  - Newfoundland Area—Headquarters, St. John's, Nfld.
- Northwest Highway Command*—Headquarters, Whitehorse, Yukon
- Canadian Army Liaison Staff*—Washington, D.C., U.S.A.
- Canadian Army Liaison Staff*—London, England.

Army Headquarters conducts the planning and policy for the administration and training of the Active and Reserve Forces of the Canadian Army. It administers corps schools and other training establishments. Matters affecting Public Relations, Cadet Services, Military Intelligence, Chaplain Services, Provost and associated activities are directed by Army Headquarters through Commands.

The authority formerly vested in Military District Command has been given considerably wider scope in the new Command organization. The five principal Commands are charged with complete military responsibility, under Army Headquarters, for all matters affecting their territorial areas and the command and administration of all troops within these areas.

**Organization.**—There is but one Canadian Army which includes all the ground forces of Canada. Service is on a voluntary basis. The organization of the Army provides for six component parts as follows:—

*The Active Force.*—The Active Force is available for General Service and comprises a Field Force, Coast and Anti-Aircraft Defence Units, Headquarters, Command and Area Staffs; also training, intercommunication, administration, research and development staffs, units and establishments, officers and men permanently employed but not borne on any regimental establishment.

The conditions for enlistment in the Active Force provide for men who were on Active Service in the Army during the Second World War, if they meet the physical requirements, have a Grade VIII education or the equivalent and are between 18 and 40 years of age. Young men are preferred. Men who were not on Active Service during the War may enlist if they meet the physical requirements, have a Grade X education or the equivalent and are between 18 and 25 years of age. Men qualified in a particular trade may be accepted up to the age of 35 years.

Officers of the Canadian Army come from three main sources: (1) graduates of the Canadian Services Colleges—Royal Roads at Esquimalt, B.C., and the Royal Military College at Kingston, Ont.; (2) the Canadian Officers Training Corps; (3) promotions from the ranks.

\* Includes the Branch of the Master-General of Ordnance.

*The Reserve Force.*—The Reserve Force provides the basis for the organization of a field force in the event of emergency. It is employed on a part-time basis and subject to annual military training.

*The Supplementary Reserve.*—The Supplementary Reserve maintains lists of units and a list of individuals required in the event of mobilization to complete the organization of the Army. Such personnel will not be subject to, yet not precluded from, annual military training.

*The Canadian Officers Training Corps.*—The C.O.T.C. is the fourth element of the Canadian Army and is responsible for training officer candidates during peace and war; personnel are subject to the same obligations in respect of military service as apply to other sections of the Army.

*The Cadet Services of Canada.*—Cadet Services are administered by commissioned officers of the Canadian Army, serving on a basis comparable to that of officers of the Reserve Force. These officers also handle training and are under direction of Active Force general staff officers at Command Headquarters. The peacetime reorganization of the Royal Canadian Army Cadet Corps has been completed. New regulations authorize a total of 50,000 Army cadets across Canada. There are approximately 490 separate cadet corps functioning throughout Canada. All service is voluntary. Free uniforms are provided and the opportunity is extended annually to attend summer camp in one of the five military Commands.

*The Reserve Militia.*—The Reserve Militia provides for units for home security duties which could not logically be performed by the Reserve Forces. Most prominent of militia units is the corps of Canadian Rangers, organized in June, 1947. The role of Canadian Rangers includes the provision of guides to organized troops, coast watching, rescue work in remote localities, assistance to civilian law-enforcement agencies and immediate local defence in times of emergency. Authorized strength of the organization is 5,000. Terms of service are somewhat similar to those for the Reserve Force, though there are no uniforms provided in times of peace nor any training parades. Service duties as Rangers parallel generally the civilian pursuits of members.

Additional to, but not integral parts of, the Canadian Army are: (1) officially authorized rifle associations and clubs; (2) such training centres as may be authorized from time to time by the Minister.

**Training.**—Actual training of Active and Reserve Force personnel is under General Officers Commanding the five Commands as directed by the appropriate branch of Army Headquarters.

Basic and advanced training for recruits, as well as refresher courses for all ranks, is conducted in a number of Army Corps Schools. These schools are organized on a permanent peacetime basis and are located as follows:—

- Royal Canadian Armoured Corps School, Camp Borden, Ont.
- Royal Canadian School of Artillery, Camp Shilo, Man.
- Royal Canadian School of Artillery (Anti-Aircraft), Picton, Ont.
- Royal Canadian School of Artillery (Coast and Anti-Aircraft), Esquimalt, B.C.
- Royal Canadian School of Military Engineering, Chilliwack, B.C.
- Royal Canadian School of Signals, Barriefield, Ont.
- Royal Canadian School of Infantry, Camp Borden, Ont.
- Royal Canadian Army Service Corps School, Camp Borden, Ont.
- Royal Canadian Army Medical Corps School, Camp Borden, Ont.
- Royal Canadian Ordnance Corps School, Montreal, Que.
- Royal Canadian Electrical and Mechanical Engineers School, Barriefield, Ont.
- Canadian Provost Corps School, Camp Borden, Ont.



Through international agreements, arrangements have been made for a large number of Canadian Service personnel to attend military schools and training establishments in the United Kingdom and the United States. A similar arrangement is in force for the training of military personnel from these countries in Canadian Service schools.

C.O.T.C. cadets and certain Reserve Force personnel are also given training at corps schools during the summer months. The bulk of Reserve Forces receive their annual training—generally a two-week period—at large camps across Canada. Active Force instructors and personnel handle training of reserves and their administration during camp periods.

Royal Canadian Army cadets are given the opportunity of summer training each year on a voluntary basis. Camps for Royal Canadian Army cadets are conducted in each Command.

**Operations.**—*Northwest Highway System.*—The Canadian Army is responsible for the maintenance of the Northwest Highway System from Mile 0 at Dawson Creek to where the highway enters United States territory at the Alaskan Border. This responsibility includes heavy repairs and new construction, firefighting, maintaining accommodation and other tasks along 1,221.4 miles of main highway plus many feeder roads and emergency landing strips. The Headquarters of the Northwest Highway System is at Whitehorse, Yukon, with a rear headquarters at Edmonton, Alta., and is responsible for movement control, employment services and purchasing. Army services include the Royal Canadian Engineers, Royal Canadian Army Service Corps, Royal Canadian Ordnance Corps, Royal Canadian Electrical and Mechanical Engineers, Royal Canadian Army Medical Corps and others.

*Northwest Territories and Yukon Radio System.*—The Northwest Territories and Yukon Radio System, with headquarters at Edmonton where it links up with the National Defence Signal System, consists of 24 stations scattered throughout Western Canada, Yukon, and the Northwest Territories. In many isolated communities, these stations are the sole means of rapid communication with the 'outside', and millions of words of traffic are handled annually. In addition to operating daily schedules, the stations of Yukon and the Northwest Territories originate weather reports which are transmitted to the Central Weather Bureau at Toronto, Ont.

*Army Survey Establishment.*—The Army Survey Establishment at Ottawa works closely with other government mapping agencies and with the photographic squadrons of the Royal Canadian Air Force. Using air photographs and reports of ground-survey parties, it produces many types and sizes of maps of Canadian territory for both military and civilian use. During 1949 the Army Survey Establishment had 20 ground-survey parties operating in northern British Columbia, in Yukon and in other parts of Canada.

### Subsection 3.—The Royal Canadian Air Force

The Royal Canadian Air Force is organized to provide for six components: Regular, Auxiliary, Reserve, Air Cadets, Women's Division and University Air Squadrons. At present, the two last components are dormant. The Royal Canadian Air Cadets, while not members of the Force, are affiliated with it for training and instruction, and the Air Cadet officers hold commissions in the Royal Canadian Air Force.

The Royal Canadian Air Force is administered from Air Force Headquarters at Ottawa, Ont. There are two geographical Air Commands. Training Command, with Headquarters at Trenton, Ont., embraces also Maritime Group Headquarters, Halifax, N.S., North West Air Command (Headquarters at Edmonton, Alta.) includes two groups, one at Winnipeg, Man., and the other at Vancouver, B.C. In addition to the Air Commands, Air Materiel Command (Ottawa, Ont.) directs and co-ordinates supply, equipment, aeronautical and construction engineering and aeronautical inspection services throughout the Air Force; and Air Transport Command (Rockcliffe, Ont.) co-ordinates and directs military air transport and photographic air-survey operations. The last two are functional Commands.

Air Attachés are maintained at Washington, D.C. (U.S.A.), Prague (Czechoslovakia), Paris (France), Brussels (Belgium), Stockholm (Sweden), Moscow (U.S.S.R.), and Buenos Aires (Argentina). In addition, the Royal Canadian Air Force is represented by the Senior Air Force Liaison Officers at London (England) and Washington, D.C. (U.S.A.).

**Organization.**—Plans for operational units of the Regular Force include an interceptor wing, a bomber reconnaissance squadron, two transport squadrons and three photographic survey squadrons. Fifteen squadrons are projected for the Auxiliary Force which will have an authorized establishment of 4,500 officers and men. The auxiliary units now in existence are as follows:—

No. 400 (Fighter) Squadron.....	Toronto, Ont.
No. 401 (Fighter) Squadron.....	Montreal, Que.
No. 402 (Fighter) Squadron.....	Winnipeg, Man.
No. 403 (Fighter) Squadron.....	Calgary, Alta.
No. 406 (Tactical Bomber) Squadron.....	Saskatoon, Sask.
No. 418 (Tactical Bomber) Squadron.....	Edmonton, Alta.
No. 420 (Fighter) Squadron.....	London, Ont.
No. 424 (Fighter) Squadron.....	Hamilton, Ont.
No. 438 (Fighter) Squadron.....	Montreal, Que.
No. 442 (Fighter) Squadron.....	Vancouver, B.C.

The R.C.A.F. (Reserve) is intended to provide a pool of partially trained personnel who can be mobilized, if the necessity should arise, and trained quickly to operational standards. Its members were drawn initially from former personnel of the Force who served during the Second World War.

The Royal Canadian Air Cadets, a corps of 15,000 boys between the ages of 14 and 18, come under theegis of a volunteer civilian organization—the Air Cadet League of Canada. The Royal Canadian Air Force co-operates with the League in bringing aviation and citizenship training to the air cadets who, in addition to receiving a standard course of instruction, may also qualify for trips to summer camps, flying training courses, educational scholarships and exchange visits with cadets of other countries. While the air cadets make no commitments regarding entry into the Royal Canadian Air Force, their pre-training is considered valuable as a basis for a Service career. Graduate air cadets constitute a high percentage of the enlistments in the Regular Force.

**Operations.**—During 1948, Air Transport Command flew a total of 2,246,412 air miles, a substantial increase over 1947. More than 5,500,000 lb. of freight and 33,552 passengers were carried during the year and 224,722 lb. of Service mail was carried to isolated stations in the north.

The R.C.A.F. photographed 280 square miles in 1921, the first year that photographic air survey was attempted by the Air Force. Since that date, one-half of Canada has been photographed by the R.C.A.F. In 1947 the R.C.A.F. covered

more than 400,000 square miles and in 1948 reached a peak of 911,000 square miles. The three photographic squadrons which carry on this work send out detachments each year between Apr. 15 and Oct. 1. They operate from many bases, including: Goose Bay, Labrador; Fort Chimo, Que.; Churchill and The Pas, Man.; Calgary and Edmonton, Alta.; Vancouver and Fort Nelson, B.C.; Whitehorse, Yukon; Frobisher (Baffin Island), Yellowknife and Norman Wells, N.W.T. In co-operation with the Canadian Army, the Department of Mines and Technical Surveys, and other government departments, the R.C.A.F. helps to map uncharted areas and to correct existing maps. It also assists in such work as timber and geological surveys, flood control, land developments, town planning, water-power development, irrigation projects and soil reclamation. One squadron, equipped with Canadian-built Lancasters, specializes in tri-camera photography for basic exploration; the others are used primarily for vertical photography in detailed analysis of terrain and Shoran-controlled photographic experiments.

During the 12-month period ended Mar. 31, 1949, the Royal Canadian Air Force carried out 116 separate search and rescue operations, flying a total of more than 2,500 hours. The R.C.A.F.'s Search and Rescue Organization is co-ordinated with contributing arms of the Navy and Army. Search and Rescue Control Centres are located at Maritime Group Headquarters (Halifax, N.S.), Training Command Headquarters (Trenton, Ont.), Tactical Group Headquarters (Winnipeg, Man.), North West Air Command Headquarters (Edmonton, Alta.), and No. 12 Group Headquarters (Vancouver, B.C.). These Headquarters are responsible for initiating, conducting and terminating search and rescue operations within their respective areas of control.

Search and rescue aircraft, marine craft, and special para-rescue personnel are located at the following places: Goose Bay, Labrador; Greenwood, N.S.; Trenton, Ont.; Winnipeg, Man.; Edmonton, Alta.; Fort Nelson and Vancouver, B.C.; and Whitehorse, Yukon.

**Enlistment.**—The Royal Canadian Air Force offers enlistment to skilled or unskilled men. Veterans who were on Active Service may enlist if they meet the physical requirements and are under the age of 30 years plus their number of years of Active Service. Applicants who were not on Active Service may be accepted if they meet the physical requirements, are unmarried, and are between 17 and 30 years of age. Applicants under 18 years of age must have written consent of parent or guardian. The majority of trades open for recruiting call for an educational standard of two years less than junior matriculation or equivalent.

**Commissions.**—Graduation from either of the Canadian Services Colleges (Royal Military College, Kingston, Ont., or Royal Roads, Esquimalt, B.C.) qualifies young men for acceptance in the Royal Canadian Air Force as officer trainees. Technical officer positions are granted to selected university graduates. Six-year short-service commissions are available to qualified high-school graduates and selected serving airmen.

**Training.**—The Royal Canadian Air Force Staff College at Armour Heights, Toronto, Ont., trains officers for command and staff positions (see also p. 1135). At the Institute of Aviation Medicine, Toronto, Ont., there are facilities for consultant and specialist officers, laboratories for nutritional research, a human centrifuge, a cold low-pressure chamber, a tropical room, a statistical section, and well-equipped laboratories for the study of all branches of aviation medicine.



Ground training was in full operation during 1948-49. Schools at Trenton, Aylmer, Camp Borden, Rockcliffe, Clinton and Centralia in Ontario, worked to capacity instructing recruits in the skills of the various Air Force trades, and at the same time gave additional courses to many veteran airmen who had re-engaged in the peacetime Force.

During the summer the Royal Canadian Air Force operates the Summer Employment Plan, under which veteran officers attending university are brought back into uniform, to work and train with the Air Force during the summer months. Students from Canadian universities who took part in this plan were engaged in medical and technical research and survey work. The plan is designed to train the students in the various specialist branches of the Service during their university course. Qualified students may be offered commissions in the R.C.A.F. upon completion of their professional training.

There was increased activity on flying training stations as a steady flow of new entries began aircrew training. The first of the post-war flight cadets have now completed their training and have short-service commissions in the Air Force. Regular intakes now pass through No. 1 Manning Depot, Toronto, Ont., to the Flying Training School, Centralia, Ont., to the Radar and Communications School, Clinton, Ont., or to the Air Navigation School, Summerside, P.E.I., depending upon whether they are taking pilot, radio officer, or navigation training. Upon completion of their training they become flying officers.

University undergraduates under the Summer Flying Training Scheme undergo aircrew training for three consecutive summers, and upon successful completion of their university course receive commissions in the Regular, Auxiliary or Reserve Air Forces. During the summer of 1949 the first university undergraduates received their pilot and radio-officer wings.

**Air Force Day.**—Air Force Day, instituted in 1947, the annual "Open House" of the R.C.A.F., falls on the first or second Saturday in June. The purpose is to give the Canadian public an opportunity to see the equipment and personnel of the Air Force, with the hope of establishing a better understanding of Service activities and operations.

#### **Subsection 4.—The Defence Research Board**

The Department of National Defence Act was amended on Apr. 1, 1947, to provide for the establishment of a Defence Research Board. The Board consists of six ex officio and six appointed members serving under a full-time chairman. The ex officio members are the Director General of Defence Research (Chairman of the Board), the Chiefs of Staff of the three Armed Services, the President of the National Research Council and the Deputy Minister of National Defence. The remaining six members are appointed by the Governor General in Council and are members with scientific and technical qualifications drawn from the universities and industry. The organization consists of a headquarters staff, advisory committees and field research stations.

The Defence Research Board is an essential part of the defence of Canada and, as such, has been described as a fourth Service. Its fundamental purpose is to correlate the special scientific requirements of the Armed Forces with the general research activities of the scientific community at large. This task is the main function of the Headquarters Staff. Its work is strengthened by the expert counsel of comprehensive advisory committees.

In order to avoid unnecessary duplication of research facilities, the research stations of the Board deal only with those problems that are peculiar to national defence. In other fields, such as electronics and aeronautics which touch upon related civilian researches, it collaborates with existing research laboratories, especially those of the National Research Council.

In all its work, the Board gives priority to problems in which Canada has special interest or for which national facilities are specially suited. Experience has already shown that well-directed defence research produces results that are of value, both direct and indirect, to the civilian economy.

It was, for example, revealed in 1947 that, as a result of wartime research into defensive measures against possible bacteriological warfare, Canadian scientists in collaboration with United States colleagues produced a vaccine to immunize cattle against the highly destructive rinderpest disease. The results of this research have been given freely to the world.

In planning this organization, the Government considered the vital need for continuity in research and planned the Defence Research Board as a fully integrated and permanent part of the defences of the country. To assist co-ordination at the highest level, the Chairman of the Board has the status of a Chief of Staff and is a member of the Chiefs of Staff Committee and of the Defence Council.

### Section 3.—Service Training

Co-ordination of service training in all its stages is carried out in Services Colleges and Staff Colleges. Services Colleges are cadet institutions qualifying graduates for commissions in the Permanent Forces and accept applicants for any of the Services. National Defence and Staff Colleges are more specialized but operate jointly to a great degree. At pp. 1138-39 of the 1948-49 Year Book a short description of each Canadian Service College and Advanced Training College appears.

### Section 4.—The Industrial Defence Board\*

The Industrial Defence Board was established by Order in Council in April, 1948, under the Department of National Defence. In March, 1949, it was transferred to the Department of Trade and Commerce, the government agency chiefly concerned with matters of industrial preparedness.

The Board is an advisory agency composed of industrialists and government departmental representatives. The chief functions of the Board are to advise the Government of Canada, through the Minister of Trade and Commerce, on such matters as: (1) the industrial war potential of Canada; (2) plans for industrial production in the event of war; (3) liaison among the Canadian Armed Forces, the Canadian Industrial Preparedness Association, Canadian Arsenal, Limited, and other government agencies and industries concerned with industrial preparedness; (4) standardization of specifications and industrial practices; (5) the location of industries; (6) the development, procurement, inspection, storage and distribution of material and equipment, and (7) the maintenance of reserve stocks.

The Board is composed of: a Chairman and Vice-Chairman, chosen from industry; five additional representatives from industry; the Associate Deputy Minister of Trade and Commerce; the Deputy Minister of National Defence; the Deputy Minister of Labour; the three Principal Supply Officers of the Armed Forces; the President of Canadian Arsenal, Limited; and the Chairman of the Defence Research Board.

\*Revised by S. D. Pierce, Associate Deputy Minister, Department of Trade and Commerce.

## CHAPTER XXVIII.—VETERANS AFFAIRS\*

### CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

The basis of administration of the Department of Veterans Affairs, established in October, 1944, is dealt with in the 1946 edition of the Year Book at pp. 1053-1054. The work of the Department as it had developed up to Mar. 31, 1947, is outlined at pp. 1134-1155 of the 1947 edition and is brought up to Mar. 31, 1949, in the present volume.

Veterans Insurance, which has previously appeared as Section 6 of this Chapter, has been transferred to the Insurance Chapter, see p. 1120.

### Section 1.—The Department of Veterans Affairs

The work of the Department of Veterans Affairs continued to show, during the fiscal year ended Mar. 31, 1949, the change which was becoming evident in the previous fiscal year. The immediate post-discharge rehabilitation phase continued to diminish and in its place a welfare phase began to develop. As a result benefits designed primarily as rehabilitation measures became less and less important.

Those phases of the Department's work showing increased importance during the year demanded greater effort. The number of disability pensioners increased as did the number of older veterans who were eligible for consideration under the War Veterans' Allowance Act. Because of a widening of the Regulations to allow veterans in receipt of war veterans allowances to receive hospitalization by the Department, the number being treated in departmental institutions increased.

Medical treatment and care for veterans, which occupies the time of more than 61 p.c. of the departmental staff, is provided by 31 institutions administered by the Department. Other institutions are under contract with the Department and their services are used where departmental facilities are not available. The remainder of the departmental staff deals with other branches: the Veterans' Land Act Administration; the Veterans' Welfare Services Branch; the Canadian Pension Commission; the War Veterans' Allowance Board; General Administration; etc.

\* Material for this Chapter has been contributed by the various Branches of the Department of Veterans Affairs through E. B. Reid, Director of Public Relations of Veterans Affairs.



The Department maintains 17 District Offices (excluding one in Newfoundland, which in 1949 was in the process of organization) and 2 Sub-District Offices in Canada together with a District Office at London, England. The Administration of the Veterans' Land Act also maintains District and Regional Offices in locations as accessible as possible to the veteran. Travelling welfare officers operating from these offices greatly assist veterans to take advantage of those rights and privileges made available to them through the Department.

## Section 2.—Discharge Gratuities and Re-Establishment Credits

The amount expended as gratuities under the War Service Grants Act showed a considerable decrease between Mar. 31, 1948, and Mar. 31, 1949. The bulk of payments made during that fiscal year covered veterans who became qualified under the Allied Veterans Benefits Act.

### 1.—Gratuity Payments under the War Service Grants Act, Years Ended Mar. 31, 1945-49

Year and Service	Navy	Army	Air Force	Total
	\$	\$	\$	\$
<b>1945-1</b>				
Forces.....	973,957	14,663,621	3,468,852	19,106,430
Auxiliary Services.....	—	—	—	—
<b>1945-46—</b>				
Forces.....	27,277,981	121,003,583	64,157,015	212,438,579
Auxiliary Services.....	180	58,646	36,115	94,941
<b>1946-47—</b>				
Forces.....	17,766,165	170,585,767	32,926,652	221,278,584
Auxiliary Services.....	730	327,176	121,253	449,159
<b>1947-48—</b>				
Forces.....	891,968	11,191,667	1,310,435	13,394,070
Auxiliary Services.....	—	309,823	Cr. 5,198 <sup>2</sup>	304,625
<b>1948-49—</b>				
Forces.....	140,907	589,132	226,685	956,724
Auxiliary Services.....	—	35,563	—	35,563
<b>Totals.....</b>	<b>47,051,888</b>	<b>318,764,978</b>	<b>102,241,809</b>	<b>468,058,675</b>

<sup>1</sup> January, February and March only.  
from 1946 to 1948.

<sup>2</sup> This credit is the result of a bookkeeping adjustment

**Re-Establishment Credits.**—During the fiscal year 1948-49 the amount of re-establishment credit authorized for use was slightly over \$35,000,000 or approximately one-half that authorized during 1947-48. Of the total authorized issues of the re-establishment credit to Mar. 31, 1949, more than 78 p.c. was used in connection with the homes of the veterans.

To Mar. 31, 1949, 957,964 veterans' re-establishment credit accounts had been opened and 568,445 of these accounts had been closed due to authorization having been given for the complete disposal of the credit. In addition to the \$230,186,919 authorized for use for the purposes listed in Table 2, about \$57,000,000 was written off for veterans who had used the alternative benefit of training, or had made application to settle under the Veterans' Land Act.

The expenditures made to Mar. 31, 1949, resulted from 1,551,151 individual approved applications for use of the credit.

## 2.—Re-Establishment Credits Paid, by Required Purposes, Years Ended Mar. 31, 1946-49

NOTE.—Figures for 1945 and 1946 will be found at p. 1143 of the 1948-49 edition of the Year Book.

Purpose	Total to Mar. 31, 1946	1947	1948 <sup>1</sup>	1949	Total
	\$	\$	\$	\$	\$
<b>Homes—</b>					
Purchased under National Housing Act	226,553	750,140	728,916	608,462	2,314,071
Purchased not under National Housing Act	6,626,702	11,739,328	5,914,772	2,800,490	27,081,292
Repairs, etc.	1,849,341	5,181,285	3,687,150	1,904,534	12,622,310
Furniture and equipment	12,385,299	56,306,510	42,971,871	22,994,717	134,658,397
Reduction of mortgages	556,902	2,203,660	758,310	285,602	3,804,474
<b>Totals, Homes</b>	<b>21,644,797</b>	<b>76,180,923</b>	<b>54,061,019</b>	<b>28,593,805</b>	<b>180,480,544</b>
<b>Business—</b>					
Purchase of a business	545,978	1,784,659	823,758	250,015	3,404,410
Working capital	3,546,229	10,116,248	5,571,179	2,093,931	21,327,587
Tools and equipment	2,310,555	7,635,696	5,853,705	3,059,629	18,859,585
<b>Totals, Business</b>	<b>6,402,762</b>	<b>19,536,603</b>	<b>12,248,642</b>	<b>5,403,575</b>	<b>43,591,582</b>
<b>Miscellaneous—</b>					
Insurance, annuities, etc.	149,117	708,955	3,476,206	1,071,960	5,406,238
Special equipment for training	70,989	116,325	114,896	86,050	388,260
Allied veterans	1,170	54,770	264,355	—	320,295
<b>Totals, Miscellaneous</b>	<b>221,276</b>	<b>880,050</b>	<b>3,855,457</b>	<b>1,158,010</b>	<b>6,114,793</b>
<b>Grand Totals</b>	<b>28,268,835</b>	<b>96,597,576</b>	<b>70,165,118</b>	<b>35,155,390</b>	<b>230,186,919</b>

<sup>1</sup> 1948 figures revised.

## Section 3.—Post-Discharge Treatment

### Subsection 1.—General Policy

The general policy with regard to treatment services is based on two fundamental principles designed to provide the best possible medical and surgical care for veteran patients. The first principle is close co-operation with the universities, so that veterans hospitals may be used for under-graduate or post-graduate teaching. As at Mar. 31, 1949, 216 interns were employed in departmental hospitals. In 1948-49 nine hospitals were approved for advanced post-graduate medical training, internal medicine and general surgery by the Royal College of Physicians and Surgeons of Canada. The larger hospitals were approved in advanced post-graduate training in various specialties. The greatest number of specialties approved for any one hospital was 15.

The second principle is that consultant staffs at the departmental hospitals should, as far as possible, be employed on either a part-time or a temporary basis, thus permitting the Department to secure the services of highly qualified professional men who, for the most part, are engaged in university teaching. This expedient has proved of benefit both to the veteran and to the departmental resident staff. The veteran patient is assured of the most modern methods of diagnosis and treatment, and the intern benefits by close association with leaders in the profession.

Special centres for the treatment of such conditions as arthritis, paraplegia and tuberculosis have been established in many of the larger departmental hospitals and clinical research is being carried out along with treatment. Where depart-

mental hospital facilities are not available, veterans with service-related disabilities and others in case of necessity may still continue to receive medical services through the doctor of their choice.

As at Mar. 31, 1949, medical social work was being conducted in 11 general-treatment departmental hospitals to assist in the treatment of the social and emotional problems adversely affecting the health of patients.

### Subsection 2.—Treatment Facilities

As at Mar. 31, 1949, the Department had in operation 10,239 beds in 31 institutions. Of these 13 were general-treatment hospitals, seven were health and occupational centres for convalescence, three were special institutions and eight were veterans homes.

The building program of the Department continues with all bed facilities under construction being of a replacement nature.

Statistics relative to the Treatment Services activities may be found in the Chapter on Health and Welfare at pp. 258-260 of this volume.

### Subsection 3.—Dental Services

A brief history of the Dental Services from their organization in 1919 is contained in the 1946 and 1947 editions of the Year Book at pp. 1059-1060 and pp. 1138-1139, respectively.

During the fiscal year 1948-49 the number of dental treatments provided and the number of patients treated showed declines from those of the previous year. The departmental clinics continued to operate at capacity and the decrease was reflected in the amount of work authorized to be done by private dentists. During the year the number of departmental clinics was reduced from 31 to 25. Applications for post-discharge treatment, which up to Mar. 31, 1948, amounted to 662,481, numbered only 933 during the year ended Mar. 31, 1949.

<i>Year Ended Mar. 31—</i>	<i>Treatments</i>	<i>Patients Completely Treated</i>	<i>Year Ended Mar. 31—</i>	<i>Treatments</i>	<i>Patients Completely Treated</i>
No.	No.		No.	No.	
1940.....	121,604	9,587	1945.....	249,170	23,672
1941.....	99,590	8,020	1946.....	509,703	56,416
1942.....	73,113	7,380	1947.....	2,700,052	284,216
1943.....	102,554	10,817	1948.....	1,191,218	160,313
1944.....	66,562	11,841	1949.....	218,173	35,951

### Subsection 4.—Prostheses and Surgical Appliances

The Prosthetic Services Branch of the Department of Veterans Affairs, established in August, 1916, has, as its first responsibility, the provision of prostheses and orthopaedic appliances to veterans and other persons entitled to such supply under Order in Council P.C. 2048 as amended. Appliances are supplied upon request to Provincial Workmen's Compensation Boards, Canadian National Railways, Department of National Defence, Department of National Health and Welfare and others.

The organization consists of a main manufacturing and fitting centre at Toronto and 11 district centres established in the major Canadian cities, equipped with facilities for measuring, fitting, adjusting and maintaining artificial limbs, orthopaedic boots, splints, braces, artificial eyes and other appliances. Minor orthopaedic appliances such as trusses, glasses, hearing aids, elastic hosiery, etc., are supplied through purchase from private manufacturers.



During the fiscal year 1948-49 several important changes were made in the accommodation of the district centres. At Toronto the centre was moved to Sunnybrook Hospital: at Winnipeg and Montreal the centres were moved to Deer Lodge Hospital and Queen Mary Veterans Hospital, respectively.

In the district centres research is continuously carried on to better the types of prostheses and appliances provided to the veterans. Recently an important development has been made in the design of special boots for arthritic cases.

The number of persons supplied with appliances during the year ended Mar. 31, 1949, was 47,007 as compared with 45,238 during the previous fiscal year. Appliances supplied since Apr. 1, 1940, have been as follows:—

Year Ended Mar. 31—	Total Production Jobs	Stock and Purchases	Total Issues	Year Ended Mar. 31—	Total Production Jobs	Stock and Purchases	Total Issues
	No.	No.	No.		No.	No.	No.
1940.....	15,703	15,920	31,623	1945.....	27,472	27,423	54,895
1941.....	15,167	15,944	31,111	1946.....	36,484	61,327	97,811
1942.....	16,625	16,460	33,085	1947.....	37,947	84,958	122,905
1943.....	19,601	17,024	36,625	1948.....	32,626	59,924	92,550
1944.....	21,990	17,847	39,837	1949.....	32,854	67,502	100,356

## Section 4.—Pensions and Allowances

### Subsection 1.—The Pension System

A summary of the development of Canadian pensions legislation following the First World War is outlined at pp. 758-760 of the 1943-44 Year Book. A further review of the procedure and summary of the changes made after the Second World War may be found at pp. 1146-1149 of the 1948-49 Year Book.

The Canadian Pension Commission administers the Pension Act and the Civilian War Pensions and Allowances Act.

As at Mar. 31, 1949, there were in force 192,624 pensions with an annual liability of \$91,629,690; statistics from 1941 are provided in Table 3.

### 3.—Pensions in Force as at Mar. 31, 1941-49

NOTE.—Figures for the years 1918-40 are given at p. 871 of the 1945 Year Book.

Year Ended Mar. 31—	To Dependants		For Disability		Totals	
	Pensions	Liability	Pensions	Liability	Pensions	Liability
	No.	\$	No.	\$	No.	\$
<b>First World War—</b>						
1941.....	17,941	10,539,876	79,204	29,058,304	97,145	39,598,180
1942.....	17,730	10,484,192	77,971	28,194,967	95,701	38,679,159
1943.....	17,549	10,457,012	76,625	27,354,865	94,174	37,811,877
1944.....	17,243	10,389,778	75,244	26,595,094	92,487	36,984,872
1945.....	17,221	10,597,308	73,863	26,543,361	91,084	37,140,669
1946.....	16,982	10,606,770	72,396	26,523,887	89,378	37,130,657
1947.....	16,799	10,647,524	70,803	25,957,054	87,602	36,604,578
1948.....	16,510	10,592,877	69,390	25,507,254	85,900	36,100,131
1949.....	16,272	12,839,080	67,821	31,335,621	84,093	44,174,701
<b>Second World War—</b>						
1941.....	319	262,592	319	76,682	638	339,274
1942.....	929	695,465	1,291	409,556	2,220	1,105,021
1943.....	2,748	1,949,128	3,917	1,362,110	6,665	3,311,238
1944.....	5,332	3,794,258	7,231	2,693,855	12,563	6,488,113
1945.....	11,419	8,333,406	15,506	5,382,842	26,925	13,716,248
1946.....	16,839	11,982,717	36,454	11,402,255	53,293	23,384,972
1947.....	17,600	12,027,726	70,633	20,676,689	88,233	32,704,415
1948.....	17,654	11,564,311	86,309	25,316,487	103,963	36,880,798
1949.....	17,693	13,129,054	90,838	34,325,935	108,531	47,454,989

Information concerning claims arising out of service during peacetime, civilian war pensions and allowances and the payment of pecuniary grants for gallantry awards will be found at pp. 1148-1149 of the 1948-49 edition of the Year Book.

**Extension of the Canadian Pension System to Newfoundland Veterans.**—In accordance with the Terms of Union, Canada agreed to make available to Newfoundland veterans and their dependants the same awards of pension as are available to Canadian veterans under similar circumstances.

All Newfoundland awards in force at the date of Union—Mar. 31, 1949—were reviewed by the Canadian Pension Commission and arrangements completed for the issue of the first payment pension cheques in Canadian funds so as to reach the recipients by the end of April, 1949.

For the convenience and assistance of Newfoundland veterans and their dependants, the Commission established a district office with a senior Pension Medical Examiner and staff at St. John's, which deals with inquiries, investigations, medical examinations, etc., pertaining to Newfoundland cases.

**Veterans' Bureau.**—The Veterans' Bureau was established in 1930 to assist the applicant for war disability pension and present his claim to the Canadian Pension Commission. (See 1947 Year Book, p. 1142.) The services of the Bureau are free to the applicant. Bureau Advocates assist not only ex-members of the military forces, but also those given disability pension rights under the Civilian War Pensions and Allowances Act. Claimants have been represented by Bureau Advocates in almost all the appeals that have been made.

In addition to assisting applicants on entitlement claims, Bureau Advocates are charged with the duty of advising and assisting ex-service personnel or other persons entitled to claim for pension on any phase of pension law or procedure which may have a bearing on the pension claim. In all offices across Canada they are called upon daily to advise and assist in matters quite apart from war disability pensions.

Departmental records show that a total of 2,225 applications for an Appeal Board hearing were filed during the fiscal year 1948-49; this compares with 1,517 filed in the previous fiscal year. Since Sept. 1, 1939, a total of 15,831 applications for Appeal Board hearings have been filed. The Veterans' Bureau had approximately 8,229 pension claims under preparation in varying stages of activity at Mar. 31, 1949.

### Subsection 2.—War Veterans Allowances

The War Veterans' Allowance Act was introduced in 1930 to make provision for veterans who were incapable of maintaining themselves on attaining the age of 60 or at any age if permanently unemployable and, as a result, in need of financial assistance.

A new Act was passed in 1946 and this was further amended in 1948. A summary of the provisions of the Act is provided at pp. 1150-1151 of the 1948-49 edition of the Year Book.

From the inception of the Act to Mar. 31, 1949, a total of 59,870 awards were made by the War Veterans' Allowance Board. Of these 29,587 were discontinued because of death or other reasons leaving 30,283 recipients for whom there is an annual liability of \$18,290,177.

The majority of the current recipients are veterans of the First World War. However, there are 68 orphans, 5,816 widows, 152 veterans of the North West Field Force, 628 veterans of the South African War, 1,218 veterans of the Second World War and 405 dual-service veterans included in total recipients.

### Section 5.—Rehabilitation of Veterans

The Veterans Welfare Services Branch of the Department of Veterans Affairs is responsible for the efficient administration of benefits available to discharged members of the Forces under the terms of the Veterans' Rehabilitation Act and the War Service Grants Act. In addition to training, the functions of the Branch are as follows:—

(1) *Administration of out-of-work allowances.* Payment of out-of-work allowances, under an agreement with the Unemployment Insurance Commission, is made by the Department of Labour on authorization of the Department of Veterans Affairs.

Administrative machinery to place veterans in employment comes under the jurisdiction of the Department of Labour, as does the administration of the Reinstatement in Civil Employment Act. Under arrangements made between the two Departments, however, the Department of Veterans Affairs is accorded the privilege of finding employment for the seriously disabled in collaboration with officials of the National Employment Service.

As a result of this close liaison between the Departments in all centres where the National Employment Service maintains an office, other than in those centres where the Department of Veterans Affairs maintains a District or Sub-district Office, the Employment Service has on its staff a Veterans Officer who is available to give advice and guidance to veterans on matters relating to their rehabilitation which come within the jurisdiction of the Department of Veterans Affairs.

(2) *Administration of allowances for veterans awaiting returns from private enterprise engaged in on their own account, including allowances available to veterans who have taken up full-time farming or commercial fishing under the terms of the Veterans' Land Act.* Close liaison is maintained by the Veterans Welfare Services Branch, the Re-Establishment Credits Division of the Rehabilitation Branch and officials of the Veterans' Land Act Administration and care is exercised to ensure that the veteran will get the best possible advice before embarking upon an enterprise or business. In this connection also it should be noted that members of citizens' committees, familiar with business opportunities in the particular centre in which the veteran wishes to establish himself, co-operate in advising the Department and these veterans of the chances of the veteran succeeding in his proposal.

(3) *Administration of allowances available to veterans who are temporarily incapacitated.* This benefit is designed particularly to care for veterans who do not require any active remedial hospital care to which they may be entitled but where, because of some ailment, they may be debarred from working for a short period.

(4) *Administration of the Unemployment Insurance contributions, payable for the period of service (or from June 30, 1941) on the completion of 15 weeks in insurable employment after discharge.*



Officials of the Veterans Welfare Services Branch also act as the veteran's friend in advising with regard to rights and privileges under regulations administered by other government departments—federal, provincial and municipal.

### Subsection 1.—Employment and Allowances

**Employment.**—The return to civil life and gainful employment of veterans has been greatly assisted by the National Employment Service of the Department of Labour, which, through the policy of veterans' preference and by untiring effort, has kept the numbers of unemployed veterans at a minimum. Unemployment among veterans follows the normal seasonal trend and, during the fiscal year ended Mar. 31, 1949, an average of more than 10,300 placements per month were made by the National Employment Service for veterans of the Second World War. Peak and low unemployment figures for veterans of the Second World War in the fiscal year ended Mar. 31, 1949, were 44,811 and 12,344, respectively. Corresponding figures for the previous fiscal year were 45,833 and 17,749 and for 1946-47 they were 71,724 and 39,333, respectively.

**Out-of-Work Allowances.**—Since applications for out-of-work allowances must be made within a period of 18 months after discharge the numbers in receipt of the allowance are rapidly declining. At Mar. 31, 1949, only 190 veterans were in receipt of this allowance compared with 48,521 at the end of April, 1946. This allowance during the immediate post-discharge period served the purpose of providing assistance to veterans who were in the process of obtaining employment. During this period a total of 171,590 awards of the allowance were made.

**Unemployment Insurance Contributions.**—During the 1948-49 fiscal year contributions paid numbered 127,633 for an amount of \$13,039,615 as compared with 194,967 payments for \$20,029,198 in the previous fiscal year. From November, 1941, to Mar. 31, 1949, a total of 458,763 payments—including 16,177 payments on behalf of female veterans—have been made for contributions totalling \$43,349,821.

**Temporary Incapacity Allowances.**—During the 1948-49 fiscal year there were practically no activities under this allowance. Up to Mar. 31, 1949, 4,753 veterans had received assistance.

**Awaiting>Returns Allowance.**—This allowance was instrumental in assisting, up to Mar. 31, 1949, a total of 57,448 veterans, including 321 women veterans, who had attempted to take up an occupation on their own account as a means of rehabilitation.

As at Mar. 31, 1949, there were 737 veterans receiving the allowance and 1,854 were temporarily suspended pending final decision as to whether or not further payments should be made.

The occupational and geographical distribution of these veterans by district is shown in Table 4.

Of the veterans who discontinued receipt of the allowance, 90 p.c. were successfully established in the occupation of their choice.

#### 4.—Applications Approved for Awaiting>Returns Allowance, by Geographic Areas and by Nature of Own-Account Business, as at Mar. 31, 1949

(V.L.A. = Veterans' Land Act)

District Centre for Area	Full-Time Farming		Commercial Fishing		General Business	Total
	Not V.L.A.	V.L.A.	Not V.L.A.	V.L.A.		
	No.	No.	No.	No.		
Charlottetown, P.E.I.....	461	447	221	74	438	1,641
Halifax, N.S.....	696	346	440	47	1,403	2,932
Saint John, N.B.....	814	437	111	33	473	1,868
Quebec, Que.....	145	339	34	15	562	1,095
Montreal, Que.....	205	560	—	—	1,910	2,675
Ottawa, Ont.....	247	361	—	—	1,173	1,781
Kingston, Ont.....	276	470	11	6	901	1,664
Toronto, Ont.....	440	666	3	4	1,872	2,985
North Bay, Ont.....	142	153	2	—	156	453
Hamilton, Ont.....	141	234	6	—	536	917
London, Ont.....	640	968	11	6	1,397	3,022
Winnipeg, Man.....	2,402	2,346	39	6	2,055	6,848
Regina, Sask.....	4,406	890	—	—	588	5,884
Saskatoon, Sask.....	4,365	1,587	2	2	653	6,609
Calgary, Alta.....	1,736	996	—	—	1,646	4,378
Edmonton, Alta.....	3,671	2,045	5	—	1,328	7,049
Vancouver, B.C.....	1,145	779	237	8	3,478	5,647
<b>Totals.....</b>	<b>21,932</b>	<b>13,624</b>	<b>1,122</b>	<b>201</b>	<b>20,569</b>	<b>57,448</b>

#### Subsection 2.—Vocational and University Training

The vocational training program, authorized under the Veterans' Rehabilitation Act, is dealt with in the Labour Chapter at p. 701, and the university training for veterans program in the Education Chapter at p. 364.

#### Subsection 3.—The Veterans' Land Act

The Veterans' Land Act is designed to assist veterans who are eligible by reason of service and who can qualify in becoming established on the land in full-time farming, part-time farming (small holding), or commercial fishing. Its financial benefits enable the veteran to start off with a substantial equity, which past experience has demonstrated is essential to sound credit land-settlement operations.

The provisions of the Act will be found at pp. 1072-1073 of the 1946 Year Book and an explanation of the amendments at pp. 1148-1149 of the 1947 edition and p. 1157 of the 1948-49 edition.

An important part of ensuring the success of the veteran who settles on the land lies in the correct and fair appraisal of the land prior to its purchase for settlement purposes. As at Mar. 31, 1949, 31,294 full-time farming properties, 18,958 small holdings and 796 commercial fishing properties had been appraised for project purposes or for immediate resale to veterans under the terms of the Veterans' Land Act. The number of acres purchased in these three categories amounted to 3,665,212 in full-time farming, 97,886 in small holdings and 9,099 in commercial fishing properties.

During the fiscal year 1948-49 a total of 10,209 veterans were qualified for settlement; financial assistance was approved for 6,313; a total of 1,437 houses were completed and 2,012 brought under construction under the individual contract basis.

Table 5 gives an indication of the number of veterans who have qualified for settlement; the number who have been approved for financial assistance, and the amounts approved in the form of loans and grants to these veterans.

**5.—Summary of Settlement Status, Loans and Grants under the Veterans' Land Act, 1942, as at Mar. 31, 1949**

Item	Full-Time Farming	Small Holdings	Commercial Fishing	Provincial Lands	Federal Lands	Total
Qualified for settlement..... No.	28,573	26,436	932	4,680	186	60,807
Approved for financial assistance.... No.	19,878	17,355	699	3,288	111	41,331
Amounts approved for land and permanent improvements..... \$	75,759,136	86,583,552	1,935,907	3,121,305	244,611	167,644,511
Amounts approved for stock and equipment..... \$	23,839,010	5,186,210	795,812	4,309,046	7,014	34,137,092
Average amounts approved per veteran..... \$	5,010	5,288	3,907	2,260	2,267	4,882
Average conditional grants per veteran..... \$	1,979	1,448	1,785	2,260	2,267	1,776

In addition, applications were approved for grants to 938 Indian veterans on Indian Reserve lands totalling \$1,008,616 for land and improvements and \$1,045,524 for stock and equipment. These grants averaged \$2,190 per Indian veteran.

**6.—House Construction under the Veterans' Land Act, 1942, as at Mar. 31, 1949**

Item	Full-Time Farming	Small Holdings	Commercial Fishing	Provincial Lands	Federal Lands	Total
	No.	No.	No.	No.	No.	No.
Houses completed.....	471	5,695	91	354	22	6,633
Houses under construction.....	230	1,728	49	252	16	2,275
Houses projected.....	461	1,229	71	337	23	2,121
Net applications for new housing.....	1,162	8,652	211	943	61	11,029

**7.—Operations Carried Out under the Soldier Settlement Act, 1919, by Provinces, as at Mar. 31, 1949**

Province	Applications Made	Persons Established	Still in Scheme	Repaid in Cash	Repaid by Time Sale	Adjustment Cases
	No.	No.	No.	No.	No.	No.
Maritime Provinces.....	4,553	1,556	101	629	64	762
Quebec.....	2,796	494	15	113	23	343
Ontario.....	8,462	1,972	165	816	89	902
Manitoba.....	10,123	3,715	211	665	61	2,778
Saskatchewan.....	15,165	6,164	758	1,973	249	3,184
Alberta.....	15,285	7,158	686	2,296	383	3,793
British Columbia.....	11,131	3,734	193	1,233	314	1,994
<b>Totals.....</b>	<b>67,515</b>	<b>24,793</b>	<b>2,129</b>	<b>7,725</b>	<b>1,183</b>	<b>13,756</b>



### Subsection 4.—Casualty Rehabilitation

The rehabilitation of veterans with physical disabilities is a process that commences at the time a disabling condition is diagnosed. The objective of this rehabilitation is the return of the disabled veteran to the best possible physical, mental, social, economic, and vocational adjustment and usefulness of which he is capable. This definition sets not only the standards to be attained, but also indicates the type of problem encountered most frequently.

The compass of rehabilitation for the disabled is so broad that every division of the Department of Veterans Affairs, together with many other government and private agencies, may be required to contribute to the provision of the total range of services necessary in any individual case. As it is the aim of the Federal Government's rehabilitation program that disabled veterans be prepared to return to the successful performances of jobs in normal competitive industry, industry must itself co-operate by receiving the disabled into its employ. Finally, the disabled themselves play the most important role in this program. They must use intelligently the services provided and must justify the confidence of employers. The vast majority of disabled veterans are demonstrating in their efforts to rehabilitate themselves qualities of initiative and determination of the highest possible order and are proving to be efficient, safe and reliable employees.

The Casualty Rehabilitation Division, the function of which is to provide vocational guidance, assistance in securing suitable employment and vocational after-care, maintains a register of all those veterans whose disabilities in relation to other factors, such as education, previous employment experience, and personality, constitute a serious problem in occupational adjustment.

There were, up to Mar. 31, 1949, 32,950 registrations with this Division of which 13,454 were still active cases. The registration according to the type of disability is shown in the following statement:—

<i>Type of Disability</i>	<i>Active Cases</i>	<i>Closed Cases</i>	<i>Total</i>
	No.	No.	No.
Amputation.....	500	1,588	2,088
Other muscular and skeleton system disabilities.....	3,732	7,036	10,768
Total and partial loss of hearing or sight.....	763	1,489	2,252
Neurological cases.....	535	631	1,166
Heart and vascular system.....	942	2,037	2,979
Respiratory disabilities.....	5,149	3,932	9,081
Mental and emotional disabilities.....	492	366	858
Unclassified.....	1,341	2,417	3,758
TOTALS.....	13,454	19,496	32,950

During the fiscal year ended Mar. 31, 1949, the total number of registrants increased by about 2,900 cases but the number of active cases decreased by approximately 4,400 cases. Progress in the rehabilitation of the cases between Mar. 31, 1948, and Mar. 31, 1949, was as follows:—

<i>Status</i>	<i>Mar. 31, 1948</i>	<i>Mar. 31, 1949</i>
	No.	No.
Employed.....	20,384	24,478
Unemployed.....	1,785	1,592
Receiving treatment, training or other services.....	6,472	5,551
Rehabilitation not feasible.....	785	997
Unknown.....	614	332
TOTALS.....	30,040	32,950

In 1948-49 an intensive educational campaign was conducted to create for the tuberculous veteran a background of understanding with prospective employers and fellow employees.

Among the agencies working with the Department in its program for the rehabilitation of disabled veterans are the National Employment Service, the Canadian Vocational Training organization, the Canadian National Institute for the Blind, the War Amputations of Canada, the National Society for the Deaf and the Hard of Hearing, and the Canadian Paraplegic Association.

### **Subsection 5.—Rehabilitation of Women**

The rehabilitation of women veterans has continued side by side with that of the male veterans and no particular problems have been encountered.

A high percentage of the women veterans have taken advantage of the provisions for training under the Veterans' Rehabilitation Act and up to Mar. 31, 1949, more than 13,600 approvals for training allowances were made. Other women veterans were established under the Veterans' Land Act and to Mar. 31, 1949, 328 had been settled.

In their use of the re-establishment credit women veterans have used more than 93 p.c. of the total amount approved for purposes directly connected with the home. To Mar. 31, 1949, a total of \$5,582,806 in re-establishment credits had been authorized for expenditure.

Citizens committees, women's clubs and organizations have been invaluable in helping the ex-service woman to fit into and take part in community life. Full co-operation with the Department of Veterans Affairs has been given, particularly in the matter of finding accommodation for the women who have moved to other centres to take training or employment.

### **Subsection 6.—Rehabilitation of Older Veterans**

The welfare of the older veteran remains one of the more challenging functions of the Department of Veterans Affairs.

Continuous study has been made of employers' objections to the hiring of older workers and of the merits of this class in the productive and social economy of the country. Appropriate educational publicity has been maintained in co-ordination with the Department of Labour and other government and private agencies. A nation-wide campaign was sponsored by the Department on behalf of the Corps of Commissionaires. This organization now employs several thousand older veterans in watchmen and security-guard work at established wage rates.

At Mar. 31, 1949, 8,901 older veterans were registered for employment with the National Employment Service offices; during the year 44,600 registrations were made and at Mar. 31, 1949, 8,586 remained unplaced. Thus, during the year, 44,915 older veterans were assisted into employment or other means of maintenance.

The Department of Veterans Affairs has established throughout its district offices small specialist staff sections whose responsibility it is, in co-operation with the National Employment Service, to screen, classify and counsel older veterans and to assist them to obtain work suited to their capacity and ability or to obtain other means of maintenance.

#### **Subsection 7.—Assistance in Social Problems**

The social adjustment of individual veterans is of real concern to the Treatment and Rehabilitation Branches of the Department of Veterans Affairs.

The Social Service Division consists of trained social workers whose purpose is to increase the social-work knowledge and understanding of members of the Department who see the veteran at first hand. It is also the function of the Division to see that existing social services are utilized to the maximum in dealing with problems presented by veterans who come to the Department for assistance. It is a basic assumption that the Department must not establish any social service for the veteran which is already available to him as a member of the community in which he lives. In order to prevent such duplication of service, it is necessary for the Social Service Division to work in close co-operation with local social agencies, community chests and councils, municipal, provincial and federal welfare departments, as well as schools of social work.



# CHAPTER XXIX.—MISCELLANEOUS ADMINISTRATION

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

## Section 1.—Public Lands

In Table 1, summarizing the land area of Canada, items 2, 3 and 4, except in the case of Newfoundland, are obtained from Federal Government sources and items 1, 5 and 6 from Provincial Government sources.

### 1.—Classification of Lands in Canada, by Tenure, (circa) 1949

NOTE.—The land area of Canada classified by surface resources is shown at pp. 16-17.

Tenure	N't'd.	P.E.I.	N.S.	N.B.	Que.	Ont.
	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles
1. Alienated from the Crown or in process of alienation.....	6,668 <sup>1</sup>	2,173	16,684	16,687	43,507	40,606
2. Federal lands other than National Parks and Indian Reserves <sup>2</sup> .....	2	—	13	38	56 <sup>3</sup>	161
3. National Parks.....	—	7	391	80	4	12
4. Indian Reserves.....	...	4	30	59	280	2,080
5. Provincial lands, including leased lands and forest reserves, but not Provincial Parks.....	30,301	—	3,625	10,609	469,364	315,213
6. Provincial Parks.....	42	—	—	—	10,653	5,210
<b>Totals, Land Area.....</b>	<b>37,013<sup>3</sup></b>	<b>2,184</b>	<b>20,743</b>	<b>27,473</b>	<b>523,860</b>	<b>363,282</b>
	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles
1. Alienated from the Crown or in process of alienation.....	44,192	104,407	77,975	19,019	63	371,981 <sup>1</sup>
2. Federal lands other than National Parks and Indian Reserves.....	3	47	101	161	1,455,087 <sup>6</sup>	1,455,670
3. National Parks.....	1,148	1,496	20,718 <sup>7</sup>	1,671	3,625 <sup>8</sup>	29,147
4. Indian Reserves.....	821	1,879	2,275	1,273	9	8,710
5. Provincial lands, including leased lands and forest reserves, but not Provincial Parks.....	173,559	128,461	147,717	323,084	—	1,601,933
6. Provincial Parks.....	—	1,685 <sup>9</sup>	14	14,071	—	31,675
<b>Totals, Land Area.....</b>	<b>219,723</b>	<b>237,975</b>	<b>248,800</b>	<b>359,279</b>	<b>1,458,784</b>	<b>3,499,116<sup>5</sup></b>

<sup>1</sup> Excludes 3 sq. miles in Labrador.

<sup>2</sup> Does not add to total for Canada due to fractions of sq. miles.

<sup>3</sup> Includes the Gattineau Park (25 sq. miles) and the Quebec Battlefields Park (0.36 sq. miles) which are under federal jurisdiction but which are not technically National Parks.

<sup>4</sup> Less than 1 sq. mile.

<sup>5</sup> Excludes Coast of Labrador.

<sup>6</sup> Includes 952,849 sq. miles set aside by Order in Council as native game preserves, in which only Indians and Eskimos may hunt, as game sanctuaries in

Council as native game preserves, in which only Indians and Eskimos may hunt, as game sanctuaries in which hunting and trapping is otherwise forbidden, and as reserves for reindeer grazing, but which are not regarded as National Parks.

<sup>7</sup> Includes Wood Buffalo Park (13,675 sq. miles) which, although reserved by the Federal Government, is not administered as a National Park.

<sup>8</sup> That portion of Wood Buffalo Park in N.W.T.

<sup>9</sup> Includes 1,392 sq. miles of unsurveyed lands—Provincial Park areas.

**Subsection 1.—Federal Public Lands\***

The public lands under the administration of the Federal Government comprise: lands in the Northwest Territories, including the Arctic Archipelago and the islands in Hudson Strait, Hudson Bay and James Bay; lands in Yukon Territory; National Parks and National Historic Sites; Forest Experiment Stations; Experimental Farms; Indian Reserves; Ordnance and Admiralty Lands; and, in general, all lands held by the several Departments of the Federal Government for various purposes connected with federal administration, including the Tar Sands Reservation comprising four areas, amounting in all to 2,068 acres, in the Fort McMurray District of Alberta.

The largest land areas under federal administration are those of Yukon and the Northwest Territories, amounting to about 1,458,784 square miles or 42 p.c. of the land surface of Canada. In general, the southern border of both Yukon and the Northwest Territories is 60°N. latitude. In Europe, the cities of Oslo, Stockholm and Leningrad are near this line; about three-quarters of Norway, two-thirds of Sweden, Finland and a large portion of Russia are north of it. This northern part of the national domain is under the administration of the Lands and Development Services Branch of the Department of Mines and Resources. The Royal Canadian Mounted Police maintain law and order.

**Recent Developments in the Northwest Territories.**—Increased power supply, due to the completion of the Snare River power project in October, 1948, (see p. 562) and the construction of roads have proved of great assistance to the mining industry.

In October, 1949, there were three producing gold mines in the Northwest Territories. These were the Con Rycon Mine, the Negus Mine and the Giant Yellowknife Mine, all situated in the Yellowknife mining district.

The Con Rycon Mine, situated about one mile south of Yellowknife, is operated by the Consolidated Mining and Smelting Company of Canada, Limited. The main shaft is sunk to a depth of about 2,460 ft. and lateral development is in the neighbourhood of 63,335 ft. This mine was the largest gold producer in 1948 with a total production of about 55,252 fine oz. Production in 1949 to July 31 was 36,804 fine oz. Of the 325 men employed at July 31, 1949, 137 worked underground. Ore was being milled at the rate of about 300 tons a day.

The Negus Mine, adjoining Con Rycon on the south, increased its daily tonnage milled from 70 tons early in 1948 to 190 tons at July 31, 1949. The main shaft is sunk to a depth of 1,940 ft. and production is obtained from the Campbell Shear Zone at the 11th and 13th levels. Lateral development is about 37,590 ft. Production in 1948 was 23,267 fine oz. and production in 1949 to July 31 was 15,538 fine oz. Of the 155 employed at the latter date 62 worked underground.

The Giant Yellowknife Gold Mine, situated about three miles north of Yellowknife, is the latest producer in the district. Milling began in May, 1948, and by July, 1949, 350 tons were being treated daily with the expectation of an increase to 400 tons by the end of the year. Development has taken place at the No. 2 shaft which has been sunk to a depth of about 780 ft. with lateral development on three levels. The No. 3 shaft has been collared and surface buildings are being constructed. Production in 1948 amounted to 7,868 fine oz. and, up to Aug. 31, 1949,

\* Prepared under the direction of R. A. Gibson, I.S.O., Director, Lands and Development Services Branch, Department Mines and Resources, Ottawa.

62,643 fine oz. were produced. These 1949 figures do not give a true indication of the productive capacity of this mine as a concentrate stock-pile, accumulated prior to the roaster plant going into operation early in 1949, has been gradually depleted by processing with the concentrate produced each day. Of the 387 men employed at July, 1949, 102 worked underground.

A shortage of ore forced the Thompson-Lundmark Mine to close down in April, 1949. Shaft sinking, diamond drilling and other development work is being carried on at the properties of: Yellorex Mines, Limited; Discovery Yellowknife Mines, Limited; Akaitho Yellowknife Gold Mines, Limited; North Inca Gold Mines, Limited; Progressive Diversified Minerals, Limited; Bulldog Yellowknife Gold Mines, Limited; Gateway Gold, Limited; Canus Petroleum Corporation, Limited; Consolidated Mining and Smelting Company of Canada, Limited; and American Metal Company of Canada, Limited. The work of the two last-named on the Pine Point Concessions on the south shore of Great Slave Lake is of particular interest.

The production of pitchblende concentrate was continued by the Eldorado Mining and Refining (1944), Limited, a Crown Company, operating at Port Radium on Great Bear Lake. This property is one of the world's principal sources of radium and uranium. Production figures are not available for publication.

Imperial Oil, Limited, continued production of petroleum at Norman Wells in the lower Mackenzie Basin.

The value of mineral production in the Northwest Territories in 1948 was \$4,267,485. The value of gold was \$3,556,875, of silver, \$19,036, and of crude petroleum, \$676,574.

During the fiscal year ended Mar. 31, 1949, 2,139 miners licences, 5,290 quartz grants and 2,474 assignments of mineral claims were issued. In addition, 102 leases comprising 5,947 acres were issued under the Quartz Mining Regulations.

The program of the Geological Survey of Canada in the Northwest Territories in 1948 involved nine field officers and seven map areas. Three topographical survey parties were engaged in the Indin, Giauque and Mathews Lake areas. Four areas aggregating approximately 8,000 square miles were mapped for publication at a scale of 1 inch to 4 miles. A study was made of the east half of the Wecho River map-area lying between the faulted areas of Indin Lake and Yellowknife Bay. Detailed mapping at field scales of 1 inch to 500 or 800 feet was undertaken in three areas containing such properties as Negus, Con Rycon and Giant Yellowknife. In addition to these mapping projects other geological investigations and reconnaissance surveys were undertaken.

An Agent of Federal Lands and Crown Timber, with headquarters at Aklavik, was appointed for that portion of the Northwest Territories north of the Arctic Circle. During 1948-49, 775 surface leases and permits-to-occupy were in effect and 145 timber permits and 17 commercial timber-berth permits were issued. As a result of increased activity at Hay River, a survey of a large addition to the settlement was completed.

Work was completed on the installation of a modern water and sewer system at Yellowknife townsite, where service was provided on a limited scale in December, 1948. Extensions to the systems and construction of a sewage disposal plant were scheduled for completion in 1949. The new public schools at Fort Smith and Yellow-



knife were in operation during 1949 and day schools were under construction at Aklavik, Fort Simpson, Fort Resolution, Coppermine, Coral Harbour, N.W.T. and Chimo, Que.

The Mackenzie Highway, an all-weather gravelled road from Grimshaw, Alta., to Hay River settlement, Great Slave Lake, was completed in 1948. This highway, the cost of which was shared by the Federal Government and the Government of Alberta, enables heavily loaded trucks to convey goods to the south shore of Great Slave Lake for transshipment by water to the various settlements in Mackenzie District. On the return trip, the trucks transport fresh fish from Great Slave Lake.

The fur trade continued to be an important factor in the economy of the Northwest Territories during the year. Although prices were low, a catch of 482,420 pelts worth \$1,872,302 was recorded for the year ended June 30, 1948. Trapping is the chief occupation of the native population, and hunting and trapping in the Northwest Territories are restricted mainly to natives and to half-breeds leading the life of natives.

Considerable progress was made in the organization and development of an improved forest conservation and wildlife protection service. Headquarters is at Fort Smith. Regular patrols are maintained and modern fire-fighting equipment has been provided, and it is anticipated that the improved operations will show satisfactory results in increasing the wildlife resources of Mackenzie District.

The annual Eastern Arctic Patrol, which carries new personnel as well as mail and the year's supplies to Royal Canadian Mounted Police detachments, medical centres, radio and weather stations, trading posts, missions and schools, was carried out in 1949 by a number of small vessels engaged by the Federal Government. A new phase of the Patrol, introduced in 1949, was the inspection by air of conditions in a number of districts. An officer of the Northwest Territories Administration and medical personnel covered both sides of Hudson Bay and parts of Baffin Island on spring and summer flights.

**Recent Developments in Yukon.**—Mining activity was stimulated in Yukon during 1948 by world demand and high prices paid for strategically and industrially required metals. Gold production in that year showed a favourable increase, total production being 60,614 fine oz. valued at \$2,121,490.\* This was an increase of 12,869 oz. over 1947. As in past years, most of this production was obtained from placer operations in the Dawson Mining District. Increased activity was apparent in the base-metal field, particularly in the vicinity of Mayo where United Keno Hill Mines, Limited, established a record production of silver-lead concentrate. In 1948 the silver production of Yukon amounted to 1,718,618 fine oz. valued at \$1,288,964 and lead production to 4,598,665 lb. valued at \$829,599.\*

Yukon Consolidated Gold Corporation, Limited, in the Dawson District, remained the principal producer of placer gold in Yukon in 1948. Operating seven dredges and one dragline, this Corporation recovered 47,538 fine oz. of gold and 9,998 fine oz. of silver. Although a late spring delayed operations, by the end of August, 1949, this Corporation had produced 31,830 fine oz. of gold. Yukon Explorations, Limited, operated one dredge in the Sixty-Mile Creek area and, in addition to a number of individual miners, other companies which produced gold from placer operations were: Reno Gold Mines, Limited; Miller Creek Placers; Clear Creek Placers, Limited; Kluane Dredging Company, Limited; Burwash Mining Company, Limited; and Bates Creek Placers.

\* Later figures than those given at pp. 529 and 532-533.

Interest in quartz mining was stimulated by amendments made to the Yukon Quartz Mining Act which allowed for the grouping of 16 claims at any time before filing assessment work and granting of credit for excess work up to an amount sufficient to qualify for certificates of improvements.

The Mayo Mining District remained the centre of lode mining in Yukon. United Keno Hill Mines, Limited, was the largest producer of base metals, the bulk of its production coming from the Calumet-Hector Mine at Galena Hill. This company's production in 1948 was 1,684,595 fine oz. of silver and 4,332,431 lb. of lead. The Silver Basin Yukon Mines, Limited, a new company, reported satisfactory results from operations at Keno Hill and Galena Hill. Other active companies were the East Bay Mining Company operating at McKay Hill and Yukon Galena Hill Mines, Limited, operating at Keno Hill. In the Whitehorse District, the most active areas for prospecting and development work were in the vicinity of Whitehorse along the Alaska Highway between Teslin, the Liard River and the Hyland Plateau. Western Ranges Prospecting Syndicate, Noranda Mines, Limited, and Great Northern Exploration and Mining Development Company, Limited, carried on development work in this District.

Operations were continued at the Tantalus Butte Coal Mine near Carmacks and 1,535 tons of coal were produced and shipped during 1948.

A mining inspection service was inaugurated under the provisions of the Yukon Mining Safety Ordinance and an inspection of all important mining properties was carried out.

Surface leases and permits-to-occupy in effect Mar. 31, 1949, numbered 69 and 26 land sales were recorded; 179 timber permits and 19 commercial timber berth permits were issued.

The Department of Mines and Resources maintained 21 survey parties in Yukon during the summer of 1948, including 3 Geological Survey, 3 Geodetic Survey, 12 Topographical Survey, and 3 Legal Survey parties. Geological studies of the Whitehorse, Dezadeash, and McQuesten areas were continued and a detailed study of the geology and mineral deposits of Keno and Galena Hills was begun. Roads, mineral claims and private lots were surveyed, and 36 miles of the Yukon-British Columbia Boundary were located and monumented. Topographical Surveys covered over 27,700 square miles by photo-topographical methods for map publication. Parties from the Canadian Army Survey Establishment were also active, and the Royal Canadian Air Force continued its program of aerial photography to assist in mapping the territory.

Maintenance of the Alaska Highway passed from United States authority to the Northwest Highway System (Canadian Army) on Apr. 1, 1946, and restrictions on tourist travel were lifted early in 1948. The Lands and Development Services Branch of the Department of Mines and Resources provided five lunch stops and three overnight camp grounds during 1948 for the accommodation of the travelling public. In 1949 there were 10 overnight camp grounds which had been established by the Department along the Highway in Yukon.

The Federal Government agricultural station on the Alaska Highway, approximately 100 miles west of Whitehorse, continued operations in 1948. Winter varieties of wheat and rye sown in August, 1947, produced an excellent first crop in August, 1948. Poultry and a small herd of dual-purpose cattle were added to the farm stock.

The fur trade continued to be a source of revenue for the inhabitants of Yukon, especially the native population. During the year ended June 30, 1948, the catch numbered 131,227 pelts valued at \$230,117.

### Subsection 2.—Provincial Public Lands

By the Terms of Union which became effective Mar. 31, 1949, Newfoundland and the Coast of Labrador became a province of Canada. All lands in that Province which are not alienated are administered by the Provincial Government. In Prince Edward Island all the land is alienated and there are no provincial public lands. In the other Maritime Provinces and in Quebec, Ontario and British Columbia (except the Railway Belt and the Peace River Block), the public lands have been administered by the Provincial Governments since Confederation. Since 1930, when the Federal Government transferred the natural resources of the Prairie Provinces and of sections of British Columbia, public lands in all provinces have been under provincial administration.

In certain of the provinces extensive areas have been set aside from provincial lands as parks and reserves. These provincial areas are dealt with in Chapter I, pp. 25-31.

Information regarding provincial public lands may be obtained from the following officials of the respective provinces: Deputy Minister of Natural Resources, St. John's, Nfld.; Deputy Minister of Lands and Forests, Halifax, N.S.; Deputy Minister of Lands and Mines, Fredericton, N.B.; Deputy Minister of Lands and Forests, Quebec, Que.; Deputy Minister of Lands and Forests, Toronto, Ont.; Director of Lands, Department of Mines and Natural Resources, Winnipeg, Man.; Director of Lands, Department of Natural Resources, Regina, Sask.; Director of Lands, Department of Lands and Mines, Edmonton, Alta.; Deputy Minister of Lands, Victoria, B.C.

## Section 2.—The Indians and Eskimos of Canada

### Subsection 1.—The Indians of Canada\*

**History.**—A short review of the historical background and economic adjustment of the Indian population appears at pp. 1170 and 1174 of the 1948-49 Year Book.

**Administration.**—The activities of the Indian Affairs Branch† of the Department of Mines and Resources include: management of Indian lands and reserves; trust funds; welfare projects; relief; family allowances; education; descent of property; rehabilitation of Indian veterans on reserves; Indian treaty obligations; enfranchisement of Indians; and a variety of other matters. The organization consists of a headquarters office at Ottawa, with about 100 local agencies in the field, each agency being responsible for one or more reserves and bands.

**Reserves.**—Reserves, or lands set aside by the Federal Government for the use of Indian bands, number more than 2,000. They vary in size from a few acres to 500 square miles. Except by special expropriation for public purposes, these reserves cannot be alienated without the mutual consent of the Government and the Indian owners. All reserve land is community property and the individual

\* Prepared under the direction of D. M. MacKay, Director, Indian Affairs Branch, Department of Mines and Resources, by T. R. L. MacInnes.

† After this material was prepared the Indian Affairs Branch was transferred to the newly organized Department of Citizenship and Immigration, established February, 1950.



holding, in so far as the land is concerned, is only the right of occupation, although the individual holder owns his improvements. Most Indians live on these reserves, which were designed primarily to provide them with a refuge where they could live, move and have their being without fear of exploitation or molestation. In the far north, however, where the lands are unsettled, there is no need for reserves, although the Indians living there are organized into bands and dealt with as band groups for purposes of administration.

## 2.—Indian Lands, by Classes and Provinces, as at Mar. 31, 1948

Province or Territory	Uncleared and Uncultivated	Cleared but not Cultivated	Under Cultivation	Total Area of Reserves <sup>1</sup>
	acres	acres	acres	acres
Prince Edward Island.....	1,320	800	200	2,741
Nova Scotia.....	16,870	999	456	19,429
New Brunswick.....	33,242	1,176	325	37,728
Quebec.....	139,299	14,339	9,289	179,057
Ontario.....	862,108	119,541	27,147	1,330,977
Manitoba.....	257,718	162,941	17,815	525,299
Saskatchewan.....	508,387	637,492	74,411	1,202,454
Alberta.....	421,563	732,287	71,767	1,455,790
British Columbia.....	445,044	246,452	42,193	814,936
Yukon and Northwest Territories.....	3,280	23	14	5,620
<b>Canada.....</b>	<b>2,688,836</b>	<b>1,966,050</b>	<b>243,617</b>	<b>5,574,029</b>

<sup>1</sup> Includes areas under water and waste lands.

**Treaties.**—From their first contact with the Indians of North America, the British recognized an Indian title or interest in the soil and considered such interest as one to be parted with or extinguished only by formal bilateral agreement. This was the beginning of the system of Indian treaties and surrenders which has been the fundamental basis of Indian policy, both in Canada and the United States. Only about one-half of the Canadian Indian population are actually adherents to formal treaties with the Federal Government. The welfare of Indians not under treaties, however, receives no less attention from the Federal Government on that account.

**Trust Funds.**—Many of the Indian bands have community trust funds which are administered for their benefit by the Indian Affairs Branch. These funds, derived mainly from the sale of natural resources, have increased from some 200,000 in 1870 to more than \$18,400,000 in 1948. They represent the total of approximately 480 separate accounts.

**Education.**—Statistics of enrolment and attendance in Indian schools are given in the Education Chapter at p. 357.

Paralleling the education of Indian children through day-school services are the many and varied adult-education services which are specially designed to encourage economic adjustment of the Indians to modern life. This important work is receiving the close attention of the Department in all settled parts of the country. The policy of the Department and the efforts of the staff are directed towards making the Indians self-supporting.

**Welfare.**—Information about welfare services for the Indians will be found in the Chapter on Health and Welfare at pp. 269-270.

**Handicraft and Home Industries.**—In 1938, a small section of the Indian welfare and training service was established for the purpose of encouraging handicrafts and home industries. Loans from a revolving fund were made available to groups of Indians desiring to produce and market articles made on Indian reserve and assistance was given in securing necessary materials.

In order to build up a stock of various lines and to assist in the setting of standards of quality, all goods produced on organized reserves are sent to a central warehouse at Ottawa. The articles produced are inspected by senior Indian workers on the reserves and carefully inspected again by the departmental craft supervisor when received at the warehouse. In addition to the production of basketry, bark and wooden articles of various types, handicrafts such as metal work and loom weaving are promoted in schools and on reserves.

**Indian Medical Services.**—Information under this heading will be found in the Health and Welfare Chapter at pp. 239-40 of this volume.

**Fur Conservation.**—Almost one-half, or about 60,000, of the Indian population of Canada are still located in the northern and outlying regions and are very largely dependent on hunting and fishing for their livelihood. Their fortunes, therefore, fluctuate with fur catches and prices.

In recent years, the Federal Government has made successful efforts to assist Indian hunters and trappers by fur-conservation and development projects. By arrangements with the provinces, large areas have been set aside as Indian hunting preserves. Fur preserves, used as illustration stations and training grounds, are helping the Indian to practise fur conservation which, in turn, is resulting in annually increasing benefits for participating Indians. Remarkable results have been achieved in these protected areas, particularly with muskrat and beaver.

An area of 425,000 acres in the district surrounding The Pas, Man., has been developed into a highly successful muskrat project. It was started about 1936 as a joint federal-provincial scheme, and for the past seven years has been administered by the Province, subject to the recommendations of the Joint Dominion-Manitoba Fur Advisory Board.

Two beaver preserves in Ontario and five in Quebec, exclusively for Indians, are being administered by the Federal Government in co-operation with the provinces concerned. Two older preserves, on the Nottaway River and in the Abitibi district in the Province of Quebec, produced more than 1,000 beaver each in 1948, realizing an amount in excess of \$100,000 for the trappers. Similar projects are progressing in Saskatchewan and Alberta.

In addition to these community hunting preserves, Indian participation in individually registered trap lines is proving an increasingly important factor in the rehabilitation of the hunting Indian. This system has been evolved because experience has shown that trapping under the former ordinary permit system led to recurring periods of depletion necessitating complete close seasons every few years.

**Revolving Fund Loans.**—Under an amendment to the Indian Act, passed in 1938, the Department of Mines and Resources may grant Revolving Fund Loans to Indian bands, groups, or individual Indians for the purchase of farm implements, machinery, live stock, fishing and hunting equipment, seed grain and materials to be used in native handicrafts. Such loans to individuals are not generally

approved, however, and are considered only under exceptional circumstances. Under this amendment money may be lent for the carrying out of co-operative projects on behalf of the Indians.

**Enfranchisement.**—The Indian Act provides for the enfranchisement of Indians. When an Indian is enfranchised, he ceases to be an Indian under the law and acquires the full rights and responsibilities of Canadian citizenship. Great discretion, therefore, is exercised by the Federal Government in dealing with this problem, as Indians who become enfranchised lose the special protection attached to their Indian status.

### Subsection 2.—The Eskimos of Canada\*

The Eskimos in Canada are found principally north of the tree-line on the northern fringe of the mainland and around the coasts of the islands in the Arctic Archipelago and in Hudson Bay. Most of the Eskimos are coastal dwellers, obtaining much of their food and clothing from the mammals of the sea. However, there are bands of Eskimos living in the interior of Keewatin District, on the west side of Hudson Bay, who are inland people and who subsist chiefly on caribou and fish.

It will be evident that the economy of these nomadic people depends entirely on hunting, trapping and fishing. Hunting produces local food while trapping produces furs to trade for the white man's goods. With variations in the supply of game for either food or fur and the drastic changes in price characteristic of the fur trade, it will be apparent that this is a precarious economy.

The 1941 Decennial Census of Canada established the Eskimo population at 7,639, of which 1,965 were located in northern Quebec. The Eskimo population of Canada, excluding Labrador, was estimated as of December, 1948, to be 8,378.

The Lands and Development Services Branch of the Department of Mines and Resources is charged with the administration of Eskimo affairs. The aims of the administration are:—

- (1) to ensure a sound Eskimo economy;
- (2) to enable the Eskimos to make a wise adjustment to the advance of civilization and to maintain their independence, initiative and integrity in the face of this advance; and
- (3) to give them full opportunity to develop to the stage where they can assume the full rights and responsibilities of citizenship.

The question of the ability of wildlife resources to support the native population is becoming an acute problem. To conserve the natural resources necessary for the subsistence of the Eskimos, the Administration has introduced game preserves where only natives may hunt and trap. In addition, game regulations provide for the efficient use of wildlife, and the Royal Canadian Mounted Police encourage hunting practices which will conserve the supply of game both on land and in the sea. The Federal Government has for a number of years operated a reindeer project near Aklavik, which was undertaken primarily as a possible means of improving the economic condition of the Eskimos. Research is going on to determine the suitability of other areas for reindeer culture and to determine the possibility of developing other resources, such as fisheries, thus broadening the native economy.

\* Prepared under the direction of R. A. Gibson, I.S.O., Director, Lands and Development Services Branch, Department of Mines and Resources. After this material was prepared this Branch was transferred (February, 1950), as the Development Services Branch, to the newly created Department of Resources and Development.



Social services available to the citizens of Canada in general are being extended to the Eskimos as rapidly as possible, care being taken that these services are extended in a manner and form conducive to the best interests of the native. Family allowances to Eskimos are issued in the form of goods and an allowance to aged Eskimos has also been authorized. (See pp. 270-271.)

Medical care and hospitalization of the Eskimos is a function of the Department of National Health and Welfare. Missionary hospitals, maintained with government assistance, are located at Aklavik, Chesterfield Inlet and Pangnirtung. At these points the Department of National Health and Welfare also maintains medical health officers, who are responsible for the surrounding areas. Government nursing stations or health centres are being established at strategic points. (See pp. 239-240.)

The nomadic life of the Eskimo people places considerable difficulty in the way of formal education. For many years the missionaries have carried on some formal education assisted by Federal Government grants. Considerable attention is being devoted to devising a suitable educational program for the Eskimos, and schools staffed by welfare teachers are being established, sometimes in conjunction with the nursing stations.

In order to maintain close contact with the Eskimos, the Royal Canadian Mounted Police detachments throughout the far north act as local representatives of the administration in all matters affecting Eskimo welfare. Administrative contact is also maintained by radio and through the Eastern Arctic Patrol, which carries representatives of the administration and of other government departments on an annual inspection of conditions in the Eastern Arctic.

### Section 3.—Department of the Secretary of State\*

The Department of the Secretary of State was constituted in its present form in 1873, through the merging of the previously existing offices of the Secretaries of State for Canada and for the provinces. The Secretary of State is the official spokesman of the Federal Government, as well as the medium of communication between the Federal and Provincial Governments, all correspondence between the Governments being conducted by him with the Lieutenant-Governors. He is the custodian of the Great Seal of Canada and the Privy Seal as well as being the channel by which the general public may approach the Crown.

The Secretary of State is also the Registrar General, registering all proclamations, commissions, licences, warrants, writs and other instruments issued under the Great Seal and the Privy Seal. He is further charged with the administration of the Companies Act, the Patent Act, the Copyright Act, the Canada Temperance Act, the Boards of Trade Act, the Trade Unions Act, the Department of State Act, the Timber Marking Act, the Trade Marks and Design Act, the Public Officers Act, the Unfair Competition Act (1932), the Translation Bureau Act, the Shop Cards Registration Act, the Seals Act, the Public Documents Act, the Reparation Payment Act, the Trading with the Enemy (Transitional Powers) Act, the Canadian

\* Revised under the direction of the Under Secretary of State, Department of the Secretary of State.

Citizenship Act, Treaties of Peace Acts, and with the collection and tabling of parliamentary returns. Other legislation imposes incidental duties on the Department. The Secretary of State deals with the organization and administration of the Office of the Custodian of Enemy Property (see the 1945 Year Book, p. 475). Statistics regarding patents and copyrights are given at pp. 886-887 of this volume.

### Subsection 1.—Incorporation of Federal Companies

Statistics of companies incorporated under the Companies Act are given in Table 3.

### 3.—Numbers and Capitalizations of Companies Incorporated under the Dominion Companies Act and Amendments, Years Ended Mar. 31, 1942-48

NOTE.—Statistics for the years 1900-25 will be found at p. 1061 of the 1938 Year Book and for 1926-41 at p. 934 of the 1942 edition. Capitalization includes consideration of the amounts of capital received on the issue of shares without nominal or par value.

Year	New Companies		Old Companies with—				Gross Increase in Capitalization	Net Increase in Capitalization
			Increased Capitalization		Decreased Capitalization			
	No.	Capitalization	No.	Amount	No.	Amount		
		\$		\$		\$	\$	\$
1942.....	211	50,606,141	40	15,760,300	39	54,964,907	66,366,441	11,401,534
1943.....	205	51,630,000	35	56,198,739	29	7,728,436	107,828,739	100,100,303
1944.....	217	53,462,000	59	31,351,380	52	18,204,490	84,813,380	66,608,890
1945.....	412	56,719,900	51	108,411,400	20	10,680,250	165,131,300	154,451,050
1946.....	649	187,588,775	88	129,163,798	32	15,407,127	316,752,573	301,345,446
1947.....	910	206,547,650	121	147,084,194	60	157,365,948	353,631,844	196,265,896
1948.....	717	176,891,600	109	109,305,261	54	68,941,194	286,196,861	217,255,667

During the year ended Mar. 31, 1948, 153 Supplementary Letters Patent were granted for variation of corporate powers, changes of name, confirmation of compromises or arrangements with shareholders and for various other purposes. In addition to the companies with share capital, 36 corporations without share capital were granted Letters Patent under Part II of the Companies Act, 1934.

### Subsection 2.—Citizenship\*

On Jan. 1, 1947, the Canadian Citizenship Act came into force. By this legislation all previous naturalization Acts in force in Canada were repealed; this included the Canadian Nationals Act, R.S.C. 1927, c. 21. The purpose of the Citizenship Act is to give a clear and simple definition of Canadian citizenship and to provide an underlying community of status for all the people of Canada that will help to bind them together as Canadians. Heretofore, the only definition of Canadian citizenship was to be found in the Immigration Act, and that was a limited one, for it defined citizenship for purposes of immigration only. The 1947 legislation is summarized at pp. 1178-1184 of the 1948-49 edition of the Year Book.

\* Since this material was prepared the administration of matters concerning Canadian citizenship has been transferred to the Department of Citizenship and Immigration, established February, 1950.

The following statements show the number of citizenship certificates granted in each year since the Canadian Citizenship Act came into force and the nationality of the recipients of these certificates.

### I.—CITIZENSHIP CERTIFICATES GRANTED TO CANADIAN-BORN AND OTHER BRITISH-BORN CITIZENS, 1947-49

Section of Act	Classification	1947	1948	1949
		No.	No.	No.
Sect. 39 (i) <sup>1</sup>	Certificates of proof of citizenship issued to Canadians—			
	(a) Canadians by birth.....	2,753	1,828	2,125
	(b) Canadians by naturalization.....	4,933	3,626	3,719
	(c) Canadians by marriage (wives).....	841	1,564	1,775
	(d) Canadians by residence (British subjects).....	3,533	2,030	1,992
Sect. 10 (2) <sup>2</sup>	British subjects.....	12	80	148
Sect. 10 (3) <sup>3</sup>	Minors whose parents have been granted Certificates...	85	236	283
Sect. 11 (a) <sup>4</sup>	Certificates in case of doubt.....	20	41	41
Sect. 11 (b) <sup>5</sup>	Minors in special cases.....	49	198	253
Sect. 11 (c) <sup>6</sup>	Persons naturalized in Canada before the Act of 1914....	1,789	1,847	1,944

<sup>1</sup> (a) 'Canadians by birth' means natural-born Canadian citizens; (b) 'Canadians by naturalization' means persons who were naturalized in Canada between Jan. 1, 1915, and Dec. 31, 1946; (c) 'Canadians by marriage' means wives who automatically acquired British nationality through their husbands prior to Jan. 1, 1947, and were thus automatically Canadian citizens on that date; (d) 'Canadians by residence' means British subjects who had a residence of 5 years in Canada prior to Jan. 1, 1947, and thus became automatically Canadian citizens.

<sup>2</sup> British subjects in the classes entitled to become Canadians as defined in this Section and Subsection.

<sup>3</sup> Minors whose responsible parents had been granted certificates of citizenship under the Canadian Citizenship Act.

<sup>4</sup> Persons with respect to whose status as Canadian citizens there was a doubt.

<sup>5</sup> Certificates granted to minors in special cases other than Sect. 10 (3).

<sup>6</sup> Persons who were naturalized locally in Canada before the date of the coming into force of the Naturalization Act, 1914.

### II.—COUNTRY OF ORIGIN OF ALIENS GRANTED CERTIFICATES OF CITIZENSHIP UNDER THE CITIZENSHIP ACT, 1947

Country of Origin	1947	1948	1949	Country of Origin	1947	1948	1949
	No.	No.	No.		No.	No.	No.
Albania.....	3	5	3	Lebanon.....	3	10	10
Argentina.....	1	1	3	Liechtenstein.....	2	—	—
Armenia.....	1	4	3	Lithuania.....	49	106	105
Austria.....	301	507	473	Luxembourg.....	5	19	6
Belgium.....	96	232	196	Macedonia.....	1	5	5
Brazil.....	1	—	8	Norway.....	143	286	277
Bulgaria.....	14	32	29	Palestine.....	4	3	2
China.....	34	276	570	Paraguay.....	—	1	1
Cuba.....	—	1	1	Persia (Iran).....	—	1	1
Czechoslovakia.....	437	859	858	Peru.....	—	1	—
Danzig.....	4	3	3	Poland.....	1,322	2,887	2,603
Denmark.....	145	209	224	Portugal.....	3	1	1
Egypt.....	1	1	3	Roumania.....	320	614	594
Estonia.....	6	15	20	Spain.....	1	5	6
Finland.....	433	737	664	Sweden.....	131	233	199
France.....	55	72	74	Switzerland.....	78	127	121
Germany.....	590	1,006	911	Syria.....	16	27	23
Greece.....	61	120	164	The Netherlands.....	150	271	243
Hungary.....	354	723	711	Turkey.....	1	9	13
Iceland.....	3	7	5	Union of Soviet Socialist Republics.....	394	1,736	720
Iraq.....	—	1	1	United States of America.....	303	508	598
Italy.....	329	578	565	Yugoslavia.....	194	391	392
Japan.....	—	371	548	Stateless.....	4	24	22
Latvia.....	7	13	12				
				TOTALS.....	6,000	13,038	11,991



### Section 4.—The Civil Service of Canada\*

In the widest sense the Federal Civil Service comprises all servants of the Crown—other than those holding political or judicial office—who are employed in a civil capacity and whose remuneration is paid wholly and directly from moneys voted by Parliament. Collectively, they form the staffs of the various departments, commissions, boards, bureaus, and other agencies of the Federal Government. Nearly every category of occupation is represented in the Civil Service, and personnel are further differentiated in terms of the authority under which appointments are made. A few are appointed by either or both Houses of Parliament directly, a number by departments and other agencies in accordance with the provisions of certain statutes, generally with executive approval of the Governor in Council, and the remainder—by far the majority—are selected and appointed by the Civil Service Commission.

As the central personnel agency of the Federal Government, the Civil Service Commission is the custodian of the "merit principle" in respect of both initial appointments and promotions. The steps by which the Commission, in its present form, came to be constituted is the record of Civil Service reform in Canada which began a year after Confederation and culminated in the passing of the Civil Service Act of 1918. Successive Royal Commissions deliberated on the problem of creating an effective and efficient working force and from their findings and recommendations emerged the concept of a quasi-judicial body, with a large measure of autonomy and with jurisdiction over nearly the whole of the public service.

**Recruitment.**—The recruitment of civil servants is conducted by means of open competitive examinations. In the past 30 years over 1,000,000 applicants for civil service posts have been examined by the Commission. Examinations are held periodically as the staff requirements of the public service dictate. Positions located throughout the country are treated in the same manner as positions at Ottawa, but applicants for local positions must be bona fide residents of the locality in each case, whereas any Canadian citizen is entitled to apply for positions open at Ottawa. Competitive examinations are announced through the public press and through posters displayed on the public notice boards of post offices, offices of the National Employment Service, offices of the Civil Service Commission, public libraries and elsewhere.

The relative capacities of applicants are measured by objective tests designed and applied by the Commission. The nature of the test varies with the class of position and it may be of the written or the oral type, or a combination of the two. For certain classes of positions ratings are based entirely on the education and experience of applicants as given on their application forms. In some cases a demonstration of skill may be required.

The names of persons successful in civil service examinations, arranged in order of rank, are recorded on eligible lists. Examination results are formally announced by publication in the *Canada Gazette* and each candidate—successful or unsuccessful—is advised of his standing. As required, appointments are made from the eligible lists, which remain valid for one year.

The statutory preference which existed for veterans of the First World War was extended to veterans of the Second World War and proved to be a major factor in occupational rehabilitation. In the period May, 1945, to December, 1948, approximately 50,000 veterans were appointed to civil service positions. The figure represents approximately 75 p.c. of all male appointments in the period.

\* Revised by the Secretary of the Civil Service Commission, except where otherwise indicated.

In recent years the Civil Service Commission has decentralized its operations and now has ten district offices and four sub-offices across the country. The Commission is granting an increasing measure of autonomy and responsibility to these offices to permit better immediate service to field agencies of Government departments.

**Promotions.**—It is a prime object of the Civil Service Act to create a career service. The result is that promotion, like entrance, is based on merit and a sound promotion system is developing. It has been the recent practice to widen the area of promotional competitions to ensure that the better employees throughout the public service receive proper recognition.

**Position Classification and Compensation.**—Provision is made in the Civil Service Act for the classifying of positions in the public service. A system of position-classification was instituted in 1919 and all positions with like duties and responsibilities were classified alike and remunerated equally. Through the years the original classification has been extensively revised, many new classes added and others discontinued as the administrative programs and practices of Federal Government departments have evolved. The determination of rates of compensation for each class is a continuing responsibility of the Commission and salary and wage surveys are conducted constantly. Position-classification is a mainspring in the Commission's primary function of recruitment, involving, as it does, the fixing of standards of qualification for each class of position.

The classification structure has been simplified in the past few years by virtue of a substantial reduction in the number of position-classes and a thorough overhaul of the wage pattern. The Commission has also recommended a series of service-wide salary adjustments that have tended to keep the public service abreast of changing economic conditions. The most recent of these recommendations was approved in 1948.

**Organization and Methods.**—Under the terms of the Civil Service Act, the Commission is made responsible for investigating and reporting to the Governor in Council on all matters affecting the organization of departments. In this respect the Commission acts as agent for the executive arm of government which maintains a constant check on the growth of establishments. In addition to the annual scrutiny of estimates by Parliament, departments are required to submit for approval all projected staff increases before engaging additional personnel. Under established financial practice, authority to release the funds required to meet such commitments is retained by the Governor in Council. Since the administrative machinery must frequently be adjusted, quantitatively and qualitatively, to meet changing conditions, the Commission is continuously engaged in the study of staffing problems throughout the public service.

In recent years there has been an increasing awareness of the extent to which economical administration depends on the adoption of modern management techniques and devices. In recognition of this the Commission set up, in 1948, an Organization and Methods Division to study problems of management in collaboration with officials directly responsible for major areas of administration. Briefly, it is the business of this Division to afford practical assistance to departments and other agencies of the Government through the systematic examination of the structure and operations, and the procedures and work methods employed in their

various branches, divisions and sections, and to engage in such other related studies as will contribute to the progressive improvement of public management as a whole. Its growing facilities are offered, free of charge, to all departments.

**Staff Training.**—Systematic in-service training of departmental staffs aimed at increasing the general efficiency of the Civil Service is a comparatively recent development in the field of personnel management. It was only in 1947 that a Staff Training Division was established in the Commission to promote and guide a service-wide scheme. This followed upon and supplanted a more modified training program carried out by the Department of Labour in the three preceding years. In this five-year period, however, about 50,000 employees—approximately one-half the civil servants under the jurisdiction of the Civil Service Act—have participated in one phase or another of the training program.

The training scheme sponsored by the Commission is a joint venture undertaken in co-operation with Federal Government departments, most of which have parallel training divisions. The Commission's Staff Training Division is primarily a co-ordinating agent. It promotes and organizes training activities; trains departmental instructors in the presentation of courses; prepares and, in some cases, gives courses of general application to all departments; publishes booklets and other training aids; assists departments in developing training to meet specialized needs; and acts as a general clearing-house for the exchange of information on training matters. It also co-ordinates the purchase and distribution of training films and advises departments on the organization, staffing and administration of training divisions.

**Civil Service Statistics.\***—Since April, 1924, a monthly return of personnel and salaries has been made by each department of the Federal Government to the Dominion Bureau of Statistics, according to a plan that ensures comparability between departments and continuity in point of time. The institution of this system was preceded by an investigation covering all years following 1912.

From 1914 to 1920, the number of employees increased very rapidly as a result of the extension of the functions of government and of the imposition of new taxes which necessitated additional officials as collectors. New services, such as the Department of Pensions and National Health and the Soldier Settlement Board, were also created during this period. In January, 1920, 47,133 persons were employed; this number was the highest reached prior to January, 1940, when employees numbered 49,739.

Between March, 1939, and March, 1949, there was an increase of 77,818 in the total number of permanent and temporary employees. The bulk of this increase was accounted for as follows: Department of National Defence, 20 p.c.; Department of National Revenue, 15 p.c.; Post Office Department, 7 p.c.; Comptroller of Treasury, 4 p.c.; Department of Transport 4 p.c.; Department of Agriculture, 4 p.c.; Public Works Department, 3 p.c.; Unemployment Insurance Commission, 9 p.c.; and 17 p.c. in Veterans Affairs and Soldier Settlement and Veterans' Land Act Departments combined.

In March, 1949, the number of permanent employees represented 31 p.c. of the total number of civil servants as compared with 70 p.c. of the total in March, 1939, and 66 p.c. of the total in March, 1925. Similarly, temporary employees

\* Revised in the Public Finance Division, Dominion Bureau of Statistics.



represented 69 p.c. of the total as compared with 30 p.c. of the total in March, 1939, and 34 p.c. of the total in March, 1925, the first year for which these statistics were published.

The following sequence of tables is condensed from a recently published historical series covering the years 1938 to 1949.

#### 4.—Numbers and Percentages of Permanent and Temporary Civil Service Employees, Months of March, 1938-49

NOTE.—Figures for the years 1925-37 will be found at p. 1141 of the 1946 Year Book.

Month of March—	Permanent		Temporary		Total	Month of March—	Permanent		Temporary		Total
	Total	P.C. of Total	Total	P.C. of Total			Total	P.C. of Total	Total	P.C. of Total	
	No.		No.				No.		No.		
1938.....	32,308	73.2	11,835	26.8	44,143	1944....	29,343	26.0	83,315	74.0	112,658
1939.....	32,132	69.7	13,974	30.3	46,106	1945....	30,240	26.1	85,668	73.9	115,908
1940.....	30,948	62.2	18,791	37.8	49,739	1946....	31,088	25.8	89,469	74.2	120,557
1941.....	30,149	45.0	36,777	55.0	66,926	1947....	29,787	23.8	95,550	76.2	125,337
1942.....	29,524	35.2	54,257	64.8	83,781	1948....	33,662	28.4	84,708	71.6	118,370
1943.....	28,708	27.6	75,347	72.4	104,055	1949....	37,909	30.6	86,015	69.4	123,924

#### 5.—Salaries and Wages and Percentages Paid to Permanent and Temporary Civil Service Employees, Years Ended Mar. 31, 1938-49

NOTE.—Figures for the years 1925-37 will be found at p. 1141 of the 1946 Year Book.

Year Ended Mar. 31—	Permanent		Temporary		Total	Year Ended Mar. 31—	Permanent		Temporary		Total
	Total	P.C. of Total	Total	P.C. of Total			Total	P.C. of Total	Total	P.C. of Total	
	\$'000		\$'000				\$'000		\$'000		
1938.....	55,292	82.7	11,588	17.3	66,880	1944....	60,358	35.9	107,614	64.1	167,972
1939.....	56,264	80.8	13,357	19.2	69,621	1945....	64,189	35.6	115,959	64.4	180,148
1940.....	57,154	78.1	16,044	21.9	73,198	1946....	66,440	34.8	124,388	65.2	190,828
1941.....	56,108	66.0	28,857	34.0	84,965	1947....	70,985	31.7	152,792	68.3	223,777
1942.....	57,609	53.1	50,815	46.9	108,424	1948....	78,495	34.6	148,295	65.4	226,790
1943.....	58,747	41.5	82,955	58.5	141,702	1949....	99,671	37.9	163,309	62.1	262,980

#### 6.—Numbers and Percentages of Permanent and Temporary Civil Service Employees at Departmental Headquarters, Ottawa, Months of March, 1938-49

NOTE.—Figures for the years 1925-37 will be found at p. 1142 of the 1946 Year Book.

Month of March—	Permanent				Temporary				Total
	Total	P.C. of Total H.Q.	P.C. of Total Perm.	P.C. of Total Perm. and Temp.	Total	P.C. of Total H.Q.	P.C. of Total Temp.	P.C. of Total Perm. and Temp.	
	No.				No.				
1938.....	7,731	66.2	23.9	17.5	3,941	33.8	33.3	8.9	11,672
1939.....	7,564	63.8	23.5	16.4	4,284	36.2	30.7	9.3	11,848
1940.....	7,507	53.5	24.3	15.1	6,513	46.5	34.7	13.1	14,020
1941.....	7,419	37.9	24.6	11.1	12,174	62.1	33.1	18.2	19,593
1942.....	7,221	26.9	24.5	8.6	19,614	73.1	36.2	23.4	26,835
1943.....	6,829	21.4	23.8	6.6	25,108	73.6	33.3	24.1	31,937
1944.....	6,765	20.3	23.1	6.0	26,564	79.7	31.9	23.6	33,329
1945.....	6,777	19.5	22.4	5.8	27,963	80.5	32.6	24.1	34,740
1946.....	6,772	20.2	21.8	5.6	26,835	79.8	30.0	22.3	33,607
1947.....	6,582	22.0	22.1	5.3	23,276	78.0	24.4	18.6	29,858
1948.....	6,835	24.8	20.3	5.8	20,772	75.2	24.5	17.5	27,607
1949.....	7,738	26.5	20.4	6.2	21,434	73.5	24.9	17.3	29,172

### 7.—Salaries and Wages and Percentages Paid to Permanent and Temporary Civil Service Employees at Departmental Headquarters, Ottawa, Years Ended Mar. 31, 1938-49

NOTE.—Figures for the years 1925-37 will be found at p. 1142 of the 1946 Year Book.

Year Ended Mar. 31—	Permanent				Temporary				Total
	Total	P.C. of Total H.Q.	P.C. of Total Perm.	P.C. of Total Perm. and Temp.	Total	P.C. of Total H.Q.	P.C. of Total Temp.	P.C. of Total Perm. and Temp.	
	\$'000				\$'000				\$'000
1938.....	15,008	79.4	27.1	22.4	3,890	20.6	33.6	5.8	18,898
1939.....	15,175	77.7	27.0	21.8	4,347	22.3	32.5	6.2	19,522
1940.....	15,227	73.5	26.6	20.8	5,492	26.5	34.2	7.5	20,719
1941.....	15,318	58.6	27.3	18.0	10,843	41.4	37.6	12.8	26,161
1942.....	15,589	46.6	27.1	14.4	17,882	53.4	35.2	16.5	33,471
1943.....	15,724	34.9	26.8	11.1	29,292	65.1	35.3	20.7	45,016
1944.....	15,910	31.0	26.4	9.5	35,368	69.0	32.9	21.1	51,278
1945.....	16,036	29.5	25.0	8.9	38,320	70.5	33.0	21.3	54,356
1946.....	16,333	29.3	24.6	8.6	39,366	70.7	31.6	20.6	55,699
1947.....	17,180	30.2	24.2	7.7	39,703	69.8	26.0	17.8	56,883
1948.....	18,893	34.5	24.1	8.3	35,814	65.5	24.2	15.8	54,707
1949.....	22,699	36.1	22.8	8.6	40,202	63.9	24.6	15.3	62,901

### 8.—Index Numbers of Permanent and Temporary Civil Service Employees, Months of March, 1938-49

NOTE.—Figures for the years 1925-37 will be found at p. 1143 of the 1946 Year Book.

(March 1925=100)

Month of March—	Employed at Departmental Headquarters			Employed other than at Departmental Headquarters			All Employed		
	Total	Perm.	Temp.	Total	Perm.	Temp.	Total	Perm.	Temp.
1938.....	116	119	109	113	129	80	113	127	88
1939.....	117	117	119	119	129	99	118	126	104
1940.....	139	116	180	124	123	125	128	121	140
1941.....	194	115	337	164	119	251	172	118	274
1942.....	266	111	543	197	117	353	215	116	404
1943.....	316	105	695	250	115	512	267	112	561
1944.....	330	104	735	275	119	579	289	115	621
1945.....	344	105	774	281	123	588	298	118	638
1946.....	333	105	743	301	128	639	310	122	667
1947.....	296	102	644	331	122	737	322	117	712
1948.....	274	106	575	315	141	652	304	132	631
1949.....	289	119	593	328	158	658	318	149	641

### 9.—Index Numbers of Salaries and Wages Paid to Permanent and Temporary Civil Service Employees, Years Ended Mar. 31, 1938-49

NOTE.—Figures for the years 1925-37 will be found at p. 1143 of the 1946 Year Book.

(Year ended Mar. 31, 1925=100)

Year Ended Mar. 31—	Employed at Departmental Headquarters			Employed other than at Departmental Headquarters			All Employed		
	Total	Perm.	Temp.	Total	Perm.	Temp.	Total	Perm.	Temp.
1938.....	120	126	100	117	139	64	118	135	73
1939.....	123	127	112	122	142	75	123	138	84
1940.....	131	128	141	128	145	87	129	140	101
1941.....	165	128	279	143	141	149	150	137	181
1942.....	212	131	460	183	145	273	191	141	318
1943.....	285	132	754	236	149	444	249	144	520
1944.....	324	133	910	285	154	598	296	148	674
1945.....	343	134	986	307	166	643	317	157	726
1946.....	352	137	1,013	330	173	704	336	163	779
1947.....	360	144	1,022	407	186	936	394	174	957
1948.....	346	158	922	420	206	931	399	192	929
1949.....	398	190	1,035	488	266	1,019	463	244	1,023

# 10.—Civil Service Employees and Salaries and Wages Paid, by Departments and Principal Branches, March, 1948, and March, 1949

NOTE.—The number of persons in the "non-enumerated classes" is not included in this table, but their compensation is included under "Salaries and Wages".

Department and Branch	March, 1948		March, 1949	
	Em- ployees	Salaries and Wages	Em- ployees	Salaries and Wages
	No.	\$	No.	\$
<b>Agriculture—</b>				
Departmental Administration and Demobilization..	206	26,881	158	34,432
Marketing Service.....	841	237,488	893	201,391
Production Service.....	1,411	361,222	1,562	358,398
Experimental Farms.....	1,369	276,010	1,442	297,838
Science Service.....	961	225,809	1,054	260,117
Prairie Farm Rehabilitation.....	493	82,534	708	100,776
Prairie Farm Assistance Act.....	95	16,373	87	14,061
Agricultural Prices Support Act.....	5	895	10	2,539
<b>Totals, Agriculture.....</b>	<b>5,381</b>	<b>1,227,213</b>	<b>5,914</b>	<b>1,269,552</b>
<b>Atomic Energy Control Board.....</b>	<b>7</b>	<b>2,182</b>	<b>7</b>	<b>2,213</b>
Auditor General.....	173	41,625	173	44,183
Chief Electoral Officer.....	10	2,205	19	4,105
Civil Service Commission.....	532	100,024	572	114,600
Commissioner of Penitentiaries.....	1,174	210,818	1,255	344,765
<b>External Affairs—</b>				
Administration.....	457	82,313	517	100,811
Passport Offices.....	59	8,029	62	9,124
International Civil Aviation Organization, Montreal.	2	868 <sup>1</sup>	2	798 <sup>1</sup>
High Commissioner's Office, London, England.....	79	20,631 <sup>1</sup>	85	26,696 <sup>1</sup>
High Commissioner's Office, Canberra, Australia.....	10	2,956 <sup>1</sup>	16	3,497 <sup>1</sup>
High Commissioner's Office, Wellington, N.Z.....	8	2,794 <sup>1</sup>	10	3,439 <sup>1</sup>
High Commissioner's Office, Dublin, Ireland.....	9	2,680 <sup>1</sup>	14	4,355 <sup>1</sup>
High Commissioner's Office, Pretoria, South Africa.	5	2,334 <sup>1</sup>	8	2,613 <sup>1</sup>
High Commissioner's Office, St. John's, Nfld.....	5	2,225 <sup>1</sup>	10	3,623 <sup>1</sup>
High Commissioner's Office, Delhi, India.....	16	5,243 <sup>1</sup>	23	6,758 <sup>1</sup>
High Commissioner's Office, Rio de Janeiro, Brazil.	12	3,440 <sup>1</sup>	17	6,050 <sup>1</sup>
Canadian Embassy, Washington, U.S.A.....	63	20,858 <sup>1</sup>	69	25,715 <sup>1</sup>
Canadian Embassy, Mexico City, Mexico.....	15	5,347 <sup>1</sup>	15	5,053 <sup>1</sup>
Canadian Embassy, Moscow, U.S.S.R.....	14	3,878 <sup>1</sup>	18	4,826 <sup>1</sup>
Canadian Embassy, Santiago, Chile.....	7	3,621 <sup>1</sup>	9	4,254 <sup>1</sup>
Canadian Embassy, Paris, France.....	42	11,457 <sup>1</sup>	50	27,355 <sup>1</sup>
Canadian Embassy, Nanking, China.....	20	4,326 <sup>1</sup>	25	6,882 <sup>1</sup>
Canadian Embassy, Lima, Peru.....	7	3,577 <sup>1</sup>	7	2,788 <sup>1</sup>
Canadian Embassy, Brussels, Belgium.....	20	6,593 <sup>1</sup>	20	7,537 <sup>1</sup>
Canadian Embassy, Buenos Aires, Argentina.....	11	3,888 <sup>1</sup>	14	6,006 <sup>1</sup>
Canadian Embassy, Athens, Greece.....	19	5,132 <sup>1</sup>	19	5,394 <sup>1</sup>
Canadian Embassy, Ankara, Turkey.....	10	3,913 <sup>1</sup>	12	4,230 <sup>1</sup>
Canadian Embassy, The Hague, Netherlands.....	13	4,690 <sup>1</sup>	16	5,750 <sup>1</sup>
Canadian Legation, Havana, Cuba.....	8	3,593 <sup>1</sup>	12	4,710 <sup>1</sup>
Canadian Legation, Oslo, Norway.....	9	3,384 <sup>1</sup>	13	4,107 <sup>1</sup>
Canadian Legation, Prague, Czechoslovakia.....	10	2,995 <sup>1</sup>	11	3,917 <sup>1</sup>
Canadian Legation, Stockholm, Sweden.....	4	1,472 <sup>1</sup>	8	2,349 <sup>1</sup>
Canadian Legation, Berne, Switzerland.....	8	5,083 <sup>1</sup>	9	4,654 <sup>1</sup>
Canadian Legation, Belgrade, Yugoslavia.....	9	3,523 <sup>1</sup>	9	3,831 <sup>1</sup>
Canadian Legation, Copenhagen, Denmark.....	11	4,171 <sup>1</sup>	12	3,081 <sup>1</sup>
Canadian Legation, Rome, Italy.....	10	3,324 <sup>1</sup>	14	4,657 <sup>1</sup>
Canadian Legation, Warsaw, Poland.....	5	1,615	8	1,861 <sup>1</sup>
Canadian Representation at International Confer- ences.....	..	305 <sup>1</sup>	2	2
Canadian Delegation to the United Nations, New York, U.S.A.....	17	7,522 <sup>1</sup>	16	8,856 <sup>1</sup>
Canadian Delegation to the United Nations, Geneva, Switzerland.....	..	..	3	1,332 <sup>1</sup>
Consular Services, New York, U.S.A.....	21	8,881 <sup>1</sup>	22	9,702 <sup>1</sup>
Consular Services, Lisbon, Portugal.....	1	700 <sup>1</sup>	..	..
Consular Services, Portland, U.S.A.....	1	201	1	200
Consular Services, Boston, U.S.A.....	..	..	7	3,686 <sup>1</sup>
Consular Services, Chicago, U.S.A.....	8	3,685 <sup>1</sup>	10	4,438 <sup>1</sup>
Consular Services, Detroit, U.S.A.....	..	..	5	2,252 <sup>1</sup>
Consular Services, San Francisco, U.S.A.....	..	..	9	4,586 <sup>1</sup>
Canadian Military Mission, Germany.....	15	5,186 <sup>1</sup>	13	4,046 <sup>1</sup>
Canadian Liaison Mission, Japan.....	8	1,700 <sup>1</sup>	8	2,391 <sup>1</sup>
Special Messengers.....	6	1,639	6	1,291 <sup>1</sup>
<b>Totals, External Affairs.....</b>	<b>1,054</b>	<b>269,772<sup>1</sup></b>	<b>1,234<sup>1</sup></b>	<b>349,501<sup>1</sup></b>

<sup>1</sup> Includes living allowances.

<sup>2</sup> This Branch of the Department no longer in existence.



**10.—Civil Service Employees and Salaries and Wages Paid, by Departments and Principal Branches, March, 1948, and March, 1949—continued**

Department and Branch	March, 1948		March, 1949	
	Em- ployees  No.	Salaries and Wages  \$	Em- ployees  No.	Salaries and Wages  \$
<b>Finance—</b>				
Main Department.....	677	109,094	698	124,733
Comptroller of Treasury.....	4,653	820,173	4,524	812,812
Royal Canadian Mint.....	288	78,182	402	77,512
Tariff Board.....	11	3,653	11	3,747
War-time Prices and Trade Board.....	1,145	239,718	1,029	256,692
<b>Totals, Finance.....</b>	<b>6,774</b>	<b>1,250,820</b>	<b>6,664</b>	<b>1,275,496</b>
<b>Fisheries.....</b>	<b>533</b>	<b>209,844</b>	<b>569</b>	<b>224,534</b>
Governor General's Secretary <sup>1</sup> .....	12	4,247	10	3,437
House of Commons.....	541	90,910	636	113,205
Insurance.....	59	17,561	63	18,978
International Joint Commission.....	4	1,820	4	2,030
<b>Justice—</b>				
Main Department.....	64	16,372	66	17,586
Remission Service.....	15	2,968	19	4,577
Supreme Court.....	28	6,785	27	6,877
Exchequer Court.....	15	3,515	15	4,002
Combines Investigation.....	22	5,654	32	9,647
Bankruptcy.....	8	3,006	8	1,976
Commission under Revision of Criminal Code.....	...	...	4	2,001
Commission under Revision of Public Statutes.....	...	...	8	4,741
<b>Totals, Justice.....</b>	<b>152</b>	<b>38,300</b>	<b>179</b>	<b>51,407</b>
<b>Labour—</b>				
Main Department.....	620	210,637	620	159,970
Unemployment Insurance.....	7,140	1,337,688	6,957	1,475,683 <sup>2</sup>
<b>Totals, Labour.....</b>	<b>7,760</b>	<b>1,548,325</b>	<b>7,577</b>	<b>1,635,653</b>
<b>Library of Parliament.....</b>	<b>31</b>	<b>9,823</b>	<b>34</b>	<b>8,769</b>
<b>Mines and Resources—</b>				
Departmental Administration.....	108	26,418	127	30,278
Immigration.....	1,079	210,769	1,281	272,345
Indian Affairs.....	771	127,693	877	163,320
Lands and Development Services.....	683	116,675	789	162,098
Mines, Forests and Scientific Services.....	1,562	309,500	2,107	487,726
Special Projects.....	8	1,830	6	2,005
<b>Totals, Mines and Resources.....</b>	<b>4,211</b>	<b>792,885</b>	<b>5,187</b>	<b>1,117,772</b>
<b>National Defence—</b>				
General Defence Administration.....	466	88,513	437	84,754
Militia Services.....	6,455	979,882	7,852	1,336,491
Naval Services.....	2,984	505,021	3,451	641,506
Air Services.....	3,314	477,154	3,408	699,843
Military Topographic Surveys.....	11	3,180	12	4,385
Canadian Army Staff College.....	161	24,425	116	19,192
Inspection Board of Canada.....	272	52,048	233	59,229
Public Relations.....	12	2,078	17	3,233
Canadian Armament Research and Development.....	273	44,364	318	56,604
Director of Chemical Warfare.....	282	52,601	289	49,405
Demobilization.....	1	175	3	8
Dependents' Board of Trustees.....	1	157	1	175
Defence Research Establishments.....	395	83,569	361	85,477
Northwest Highway System.....	376	65,098	400	80,839
Dependents' Allowance Board.....	36	6,103	9	2,447
<b>Totals, National Defence.....</b>	<b>15,039</b>	<b>2,384,368</b>	<b>16,904</b>	<b>3,123,580</b>
<b>National Film Board.....</b>	<b>598</b>	<b>151,202</b>	<b>547</b>	<b>163,134</b>

<sup>1</sup> Salaries of aides-de-camp are included but not their number.

<sup>2</sup> Includes living allowances.

<sup>3</sup> This Branch of the Department no longer in existence.

**10.—Civil Service Employees and Salaries and Wages Paid, by Departments and Principal Branches, March, 1948, and March, 1949—concluded**

Department and Branch	March, 1948		March, 1949	
	Em- ployees	Salaries and Wages	Em- ployees	Salaries and Wages
	No.	\$	No.	\$
National Health and Welfare—				
Departmental Administration.....	223	40,353	236	45,725
Health.....	725	165,700	794	218,828
Welfare.....	752	120,111	743	131,356
Indian Health Services.....	646	98,193	812	130,033
Totals, National Health and Welfare.....	2,346	424,357	2,585	525,942
National Research Council.....	1,543	350,321	1,524	472,834
National Revenue—				
Main Department.....	5,552	1,109,684	5,776	1,320,580
Income Tax Division.....	10,478	1,690,139	11,704	2,296,880
Totals, National Revenue.....	16,030	2,799,823	17,480	3,616,960
Post Office— <sup>1</sup>				
Civil Government.....	1,092	194,894	1,060	211,074
Operating Service.....	16,013	8,607,584	16,989	10,040,269
Totals, Post Office.....	17,105	8,802,478	18,049	10,251,343
Privy Council.....	68	17,038	72	17,451
Public Archives.....	54	13,588	55	14,263
Public Printing and Stationery.....	786	171,798	856	200,800
Public Works—				
Civil Government.....	350	81,491	356	88,392
Outside Service.....	6,224	794,000	6,191	891,127
Totals, Public Works.....	6,574	875,491	6,547	979,519
Reconstruction and Supply.....	329	65,579	408	89,293
Royal Canadian Mounted Police.....	463	479,564	490	735,566
Secretary of State.....	528	122,350	557	118,867
Senate.....	148	27,725	152	26,793
Soldier Settlement and Veterans' Land Act.....	1,678	348,269	1,468	340,648
Trade and Commerce—				
Headquarters and Miscellaneous Branches.....	1,105	234,018	1,119	268,228
Board of Grain Commissioners.....	781	189,424	791	168,485
Dominion Bureau of Statistics.....	1,457	238,077	1,351	254,017
Canadian Government Elevators.....	157	28,320	140	25,603
Totals, Trade and Commerce.....	3,500	689,839	3,401	716,333
Transport—				
Main Department.....	7,811	1,572,574	8,500	1,971,000
Transport Commissioners.....	136	37,284	144	40,817
Air Transport Board.....	36	9,899	42	11,632
Canadian Maritime Commission.....	17	5,230	32	9,577
Royal Commission on Transportation.....	...	...	3	388
Totals, Transport.....	8,000	1,624,987	8,721	2,033,414
Veterans Affairs.....	15,173	2,792,651	14,011	2,657,067
<b>Grand Totals</b> .....	<b>118,370</b>	<b>27,959,802</b>	<b>123,924</b>	<b>32,664,007</b>

<sup>1</sup> Statistics do not include the numbers of postmasters of revenue offices. It should also be noted that post-office expenditures are balanced by receipts from the public.

## Section 5.—Supervision of Race-Track Betting

The supervision of race-track betting, under the pari-mutuel system, has been under the jurisdiction of the Minister of Agriculture since it first operated during the racing season of 1921. The actual supervision is carried out by officers of the Royal Canadian Mounted Police. Table 11 brings the data up to the year 1948.

## 11.—Race-Track Betting in Canada, Years Ended Mar. 31, 1939-48 and by Provinces, 1947 and 1948

NOTE.—Figures for the years 1924-38 are given at p. 1076 of the 1940 Year Book.

Year	Associations	Days Racing	Amounts Wagered	Pari-Mutuel Receipts Retained	Prize Money
	No.	No.	\$	\$	\$
<b>Totals, 1939</b> .....	26	285	21,695,523	1,594,438	1,070,770
<b>Totals, 1940</b> .....	26	284	21,355,037	2,189,746	1,051,824
<b>Totals, 1941</b> .....	25	282	21,363,629	2,197,025	1,073,625
<b>Totals, 1942</b> .....	24	275	25,470,913	2,531,126	1,061,290
<b>Totals, 1943</b> .....	22	283	33,145,013	3,137,726	1,178,550
<b>Totals, 1944</b> .....	25	298	37,068,199	3,487,489	1,427,582
<b>Totals, 1945</b> .....	26	307	42,193,253	3,944,758	1,588,345
<b>Totals, 1946</b> .....	27	305	48,667,506	4,660,908	1,816,690
<b>1947</b>					
Quebec.....	4	50	2,491,268	287,837	239,200
Ontario.....	11	126	29,034,232	2,695,334	1,231,900
Manitoba.....	2	28	4,134,448	400,740	182,400
Saskatchewan.....	3	15	743,760	103,530	45,675
Alberta.....	4	40	3,220,272	320,716	177,050
British Columbia.....	5	70	8,895,929	964,963	447,450
<b>Totals, 1947</b> .....	29	329	48,519,909	4,773,120	2,323,675
<b>1948</b>					
Quebec.....	4	56	3,157,975	406,423	269,100
Ontario.....	11	144	37,368,215	3,778,225	1,574,600
Manitoba.....	2	28	4,216,707	496,460	207,500
Saskatchewan.....	2	12	773,903	113,037	50,600
Alberta.....	4	39	3,447,711	393,709	198,500
British Columbia.....	5	70	7,213,980	891,133	485,400
<b>Totals, 1948</b> .....	28	349	56,178,491	6,078,987	2,785,700



# CHAPTER XXX.—SOURCES OF OFFICIAL STATISTICAL AND OTHER INFORMATION RELATIVE TO CANADA

## CONSPECTUS

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SECTION 1. SOURCES OF FEDERAL GOVERNMENT INFORMATION.....	1170	SECTION 3. ACTS ADMINISTERED BY FEDERAL DEPARTMENTS.....	1196
SECTION 2. DIRECTORY OF SOURCES OF OFFICIAL INFORMATION FOR ALL DEPARTMENTS (FEDERAL AND PROVINCIAL) .....	1174	SECTION 4. FEDERAL AND PROVINCIAL ROYAL COMMISSIONS.....	1201

## Section 1.—Sources of Federal Government Information\*

The chief source of statistical information on all phases of the economy of Canada is the Dominion Bureau of Statistics where the decennial and quinquennial censuses are planned and statistical information of all kinds—federal and provincial—is centralized. In regard to information that is not mainly statistical the individual Departments concerned with the particular subject, as indicated in the Directory at pp. 1176-1195, should be approached. Certain Government bodies and national agencies, because of the nature of their work and the appeal it has to broad sections of the population, are organized primarily as information or publicity agencies. Among these are: the Information Division, Department of External Affairs, which deals with questions about External Affairs originating in Canada and with general requests for information on Canada and Canadian affairs, originating abroad; the Publicity Division, Department of Trade and Commerce; the Information Services Division, Department of National Health and Welfare; the Canadian Broadcasting Corporation; and the National Film Board. The Departments of Agriculture, Resources and Development and Mines and Technical Surveys, while not thus classed, are interested in the dissemination of information to a greater extent than most other Government Departments, and several other Departments have Publicity Branches or Public Relations Divisions. These services are described below.

Government Departments, with few exceptions, issue their own lists of reports and publications. They must, according to statute, publish annual reports which are tabled each year in the House of Commons by their respective Ministers. However, for the purpose of this Section, the descriptions given below are limited to the six information services specified in the first paragraph above. Section 2, on the other hand, has been prepared with the purpose of presenting to the reader a directory of all sources of information, federal and provincial, and thereby directing the reader who is not in touch with governmental organization to the proper channels from which he can draw material relating to any particular subject.

**The Dominion Bureau of Statistics.**—The Dominion Bureau of Statistics was set up by statute in 1918 as a central statistical department for Canada (8-9 Geo. V, c. 43).† The Act was a consolidation of all previous statistical legislation

\* Revised in the Divisions mentioned in the text of this Section.

† This statute, consolidated as the Statistics Act (R.S.C., 1927, c. 190) was repealed and replaced by the Statistics Act, 11-12 Geo. VI, c. 45.

and was based on the report of a Commission on Statistics, appointed in 1912, which recommended (1) a series of specific reforms and enlargements in Canadian statistics, and (2) a policy of statistical co-ordination for Canada, under central direction. In 1915, following the recommendations in this Report, the office of Dominion Statistician was created but it was not until 1918 that the recommendations of the Commission were embodied in legislation.

The chief aims of the Dominion Bureau of Statistics are:—

- (1) to furnish factual data for administration and government;
- (2) to assist in developing Canada as a well-informed nation by standing ready to help business men and individuals to plan their enterprises and their lives.

It is in regard to the second of these aims that this review is concerned.

*Inquiries.*—Hundreds of individual requests for information are received in the Bureau each day, routed through the appropriate divisions and answered as expeditiously as possible. Since the field of effort, from the statistical side, deals with all phases of the national economy, there is scarcely a subject upon which the Bureau is not able to give some information. Nevertheless, inquiries of a statistical nature only should be directed to the Dominion Bureau of Statistics.

*Publications.*—The Dominion Bureau of Statistics is the largest publishing Department of the Federal Government: the subjects of its reports cover all aspects of the national economy. The appropriation for the Bureau, passed by Parliament each year, provides limited funds for the printing and processing of reports and bulletins. Reports printed from type are set up by the King's Printer, but all processed reports and bulletins are completely printed and published by the Dominion Bureau of Statistics.

The policy with regard to the distribution of publications is based on sales to the public at actual cost of paper and press-work only; compilation, editing and other overhead costs are not included. The object is to extend the service to the public as widely as possible and so spread the compilation and overhead, which are the big items in total costs. A special subscription rate of \$30 per annum entitles the subscriber to receive a copy of each publication, including News Bulletins, as issued. Statistical information not of general interest is published as Reference Papers or Memoranda and an additional subscription rate of \$10 is made for each category: this entitles the subscriber to receive all issues in each class. A discount of 25 p.c. is allowed on the excess over \$5 of single purchases totalling between \$5 and \$20: on single purchases of between \$20 and \$50 the discount is 50 p.c. of the excess over \$20.

A complete list of Bureau publications is available from the Dominion Statistician, on request. Orders for reports should be sent to the Dominion Bureau of Statistics, Ottawa, and should give the correct title or titles of the publication or series of reports in which the applicant is interested and include the necessary remittance in the form of a cheque or money-order made payable to the Receiver General of Canada, Ottawa.

**Information Division, Department of External Affairs.**—The task of this agency is to make Canada better known abroad and to encourage interest in and understanding of international affairs within Canada.

The Division prepares for Canadian Missions abroad—Embassies, Legations, Consulates and Trade Commissioners' Offices—a regular supply of information material on developments in Canada. Reference papers, booklets, features, photographs and other graphic material dealing with Canada thus are distributed throughout the world. Information Officers are attached to the staff of Canadian Missions at New York, London, Washington, Paris and Canberra.

The Division maintains an Enquiries Section at Ottawa to deal with questions about Canada received from abroad and questions on international affairs received from within Canada. The Division offers special facilities to journalists, writers and commentators visiting Canada, and for Canadian speakers abroad. It supervises the departmental library and takes a special interest in Canada's cultural relations abroad.

Domestically, the Division is responsible for departmental press conferences, press releases, handling of press inquiries and for the provision of information relating to external affairs and the work of the Department. It also co-ordinates the activities of all Canadian Government agencies engaged in and interested in disseminating Canadian information abroad. It is normally responsible for Canadian information arrangements at international conferences both in Canada and elsewhere.

**Publicity Division, Department of Trade and Commerce.**—Information, pertaining specifically to trade, is obtainable from this Division, which maintains close liaison with all Branches and Divisions of the Department and with a number of Crown companies. It is responsible for production of "Foreign Trade", the weekly publication of the Foreign Trade Service, and for the preparation of brochures, some of which are required for distribution at trade fairs in other countries. Information is made available to Canadian Trade Commissioners for distribution within their respective territories, including the provision of motion picture films. The Division is closely identified with the Canadian International Trade Fair, although promotional literature is distributed directly from the headquarters of that organization at Toronto.

**Information Services Division, Department of National Health and Welfare.**—The responsibility of this Division, in co-operation with other divisions of the Department of National Health and Welfare and provincial authorities, is the production and distribution of educational materials on health, welfare and social security, for use in Canada and abroad. These materials, issued in both English and French, include books, pamphlets, periodicals, posters, exhibits, displays, radio dramatizations and press releases, as well as films and film-strips prepared in co-operation with the National Film Board. With the exception of periodicals, these are distributed in Canada through provincial authorities. Distribution to other countries is mainly through the Department of External Affairs or, in quantity, the King's Printer. The most important periodicals published by the Division are "Canada's Health and Welfare" (monthly), "Canadian Nutrition Notes" (monthly), "Industrial Health Bulletin" (monthly), "Industrial Health Review" (twice yearly) and "Nutrition Bulletin" (annually).



**Canadian Broadcasting Corporation.**—Radio broadcasting is an important means of giving information to the public along with newspapers, films and other means of communication. Radio broadcasting in Canada is a combination of a publicly owned national system and privately owned local community stations, many of which are affiliated with the Canadian Broadcasting Corporation's networks.

Since its establishment in 1936, the Canadian Broadcasting Corporation has become one of the most effective channels through which information, official and unofficial, is broadcast to the Canadian people. Radio is relatively more important in Canada than in most other countries, because of the widely distributed population and the number of sparsely peopled areas, and the CBC has gradually bridged the gaps with high-powered transmitters designed to serve rural as well as urban areas. It has also pioneered in the development of low-powered repeater stations attached to the network lines, and which serve areas unable because of topographical conditions to receive an adequate signal from any existing station.

News broadcasts and information programs occupy a considerable proportion of national and regional network time. These include news, drama, informative talks, children's programs, school broadcasts, public-service broadcasts, sports, women's activities, etc. Canadian listeners have a very wide range of radio fare, since the CBC not only produces its own programs in the various production centres across Canada, but brings in selected programs from the networks in the United States, the British Broadcasting Corporation, and other national radio systems. The CBC maintains a bureau at London, England, and at United Nations Headquarters, and is credited with having done more to inform its listeners of United Nations activities than any other broadcasting system.

Through the International Shortwave Service operated by the CBC on behalf of the Federal Government, programs are broadcast in twelve languages: English, French, Czech, German, Dutch, Norwegian, Danish, Swedish, Italian, Russian, Portuguese and Spanish. Through the activities of the CBC International Service, information on life in Canada and on economic conditions is broadcast abroad as part of the general information plan for promoting a better understanding of Canada in other countries. Since the CBC shortwave transmitters at Sackville, N.B., have the strongest signal reaching Europe from this side of the Atlantic, the transmitters are made available to United Nations radio, free of charge, for regular transmissions.

**National Film Board.**—The National Film Board produces and distributes photographs, photo stories, newsreels, film-strips, displays, posters, silk-screen prints and other visual media on all aspects of Canada—its landscape, resources, industries, agriculture, and the national life and character of the people.

The Film Production Branch is fully equipped with all the necessary technical facilities for the production of films. Theatrical and non-theatrical short subjects are made for other government departments and from the production appropriation of the Board. These films portray progress and development in the economic, social, political and cultural life of Canada. The National Film Board in its ten

years of operation has produced more than 2,500 films. A central photograph library containing more than 60,000 active negatives and a photo laboratory serves all government departments.

The National Film Board's technicians keep abreast of developments in colour production, stereoscopic films and television. Many Canadian films are featured on television programs in the United Kingdom and other countries.

The Board's films and other productions are widely distributed in the United States, the United Kingdom, Australia, Central and South America and other countries through the Board's offices at New York, Chicago and Washington in the United States; Mexico City, Mexico; Sydney, Australia; and London, England; and through Canadian trade and diplomatic offices. For travel films the Board has established 62 outlets in 35 states in the United States. Other distribution channels are through newsreel companies, commercial theatres and government and other non-theatre film circuits. In all, distribution of the Board's productions was carried out in 58 countries during 1948.

In Canada, films are distributed by the Distribution Branch through regional offices in each of the ten provinces. One or more productions are released every month to theatres across the country. Non-theatrical films reach over 3,300 communities through a field staff of 70, through self-operating circuits and 235 film libraries. Community film activity is co-ordinated by 250 film councils and classroom and adult education programs by provincial agencies.

## **Section 2.—Directory of Sources of Official Information for All Departments (Federal and Provincial)**

To make best use of the Directory, it is necessary that the reader understand broadly the differences in function between federal and provincial departments and their separate fields of work.

Certain fields of effort, such as Trade and Commerce, Customs and Excise, Currency and Banking, Navigation, Transportation, Radio, Census of Population, National Defence, etc., are constitutionally federal matters and in such fields the respective departments at Ottawa are the proper sources with which to communicate. While other fields of effort such as the administration of lands and natural resources, education, roads and highways, and health and hospitals are the responsibility of the provinces under the British North America Act, certain federal departments are also concerned with specific aspects of these subjects and, as is the case with the Dominion Bureau of Statistics, in co-ordinating and presenting the material for Canada as a whole.

As a general guide to the public, it may be pointed out that questions relating to the actual development and administration of resources should be forwarded to the particular provinces concerned. The Federal Government, while not administering the resources within provincial boundaries, co-operates closely with the provinces and is in a position to furnish material for Canada, especially production data, on a national basis, marketing data on international, national and provincial

bases, research work and experimental station data on a national basis, and also on a provincial basis from Federal Government stations located within particular provinces. In agriculture, for instance, data on the breeding of live stock and the improvement of strains, on agricultural marketing and crop yields are cases in point—in forestry, questions of forest research, forest fire protection and reforestation offer good examples. Where inquiries are directed to federal sources, they should, as a general rule, be sent to the individual departments listed in the Directory for information not of a statistical nature but, whatever the subject, where the information required is clearly statistical, they should be addressed to the Dominion Bureau of Statistics.

Bearing these points in mind, the reader will be able to apply the information given in the Directory to best advantage.

In the Directory, symbols are set against individual sources of information to give special information such as availability of detailed lists of publications, the costs of such lists (in cases where a charge is made), or information of other kinds. All departments whether federal or provincial are prepared to furnish, by letter or otherwise, information in their respective fields, free of charge although, where special compilations are called for, a nominal charge is sometimes made.

The address for all federal departments is Ottawa, Ontario. Inquiries forwarded to provincial departments should be addressed to the provincial capitals concerned:—

Newfoundland.....	St. John's
Prince Edward Island.....	Charlottetown
Nova Scotia.....	Halifax
New Brunswick.....	Fredericton
Quebec.....	Quebec
Ontario.....	Toronto
Manitoba.....	Winnipeg
Saskatchewan.....	Regina
Alberta.....	Edmonton
British Columbia.....	Victoria

The King's Printer, Ottawa, publishes an Official List of all Federal Government publications printed from type. This list, which may be obtained on application, is revised at regular intervals and is classified on a subject basis, as well as being adequately cross-referenced. Most federal and provincial departments that edit near-print publications (either in mimeographed or rotaprinted form) issue lists of this material free to the public and very often such lists include the printed publications published by the same departments, and available through the King's Printer.

Inquiries about Yukon and the Northwest Territories should be addressed to Ottawa.



# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION

▲ Most publications of federal departments printed from type are purchasable from the King's Printer who publishes current list. Photographs, films and displays may be purchased from the National Film Board at prices obtainable on application. Most Provincial Government printed publications may be obtained from the King's Printers of the province. For addresses of Provincial Governments see text immediately preceding this Directory.

- ☐ Near-printed and mimeographed reports free or purchasable from this department or branch; particulars on application
- ☐ Directory of departmental organizations and activities available from the federal or provincial department on request
- List of publications available free of charge on request from federal or provincial departments concerned. (In the case of the federal Labour Department a list of publications is given in the *Labour Gazette*.)

## ▲ SOURCES FOR FEDERAL DATA

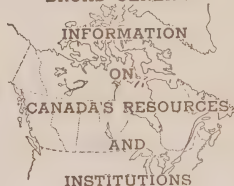
(Unless otherwise indicated the location of the Department or Branch is Ottawa, Ont.)

- Dept. of Trade and Commerce  
Publicity Division
- ☐ ●... Dominion Bureau of Statistics
- ☐ ●... Dept. of Mines and Technical Surveys
- ☐ ●... Dept. of Resources and Development  
Information Service
- ... Dept. of External Affairs  
Information Division (general requests originating in all countries outside Canada)
- ☐ ○... Dept. of Citizenship and Immigration  
Canadian Citizenship Branch
- ☐ ●... National Film Board (films, filmstrips, posters, photo-displays, photographs on all subjects)

- ☐ ○ ● Dept. of Agriculture  
Information Service  
Experimental Farms Service (stations and farms throughout Canada)
- ☐ ●... Dept. of Resources and Development (Northwest Territories and Yukon)
- ☐ ○... Dept. of Citizenship and Immigration  
Indian Affairs Branch  
Dept. of Veterans Affairs (veterans only)
- Dept. of Finance (farm improvement loans and long-term mortgage loans)
- ☐ ●... National Film Board (films, photo-displays, photographs)
- ☐ ●... Dominion Bureau of Statistics

- ☐ ●... Dept. of Resources and Development  
Development Services Branch
- ☐ ○... Dept. of Citizenship and Immigration  
Indian Affairs Branch (Indian handicrafts)
- National Museum of Canada
- ... National Gallery of Canada
- ☐ ●... National Film Board (films and filmstrips)
- Dept. of Veterans Affairs (veterans only)
- Public Archives

## BROAD GENERAL



## SUBJECT

### AGRICULTURE GENERAL AND FARMING

### ART AND HANDICRAFTS

### ATHLETICS

See  
"Physical Fitness"

## SOURCES FOR PROVINCIAL DATA

(For seats of Provincial Governments see list immediately preceding this Directory)

For broad general information in regard to particular provinces application should be made to: Nfld., Dept. of Provincial Affairs; P.E.I., Publicity and Travel Bureau; N.S., Dept. of Trade and Industry; N.B., Dept. of Industry and Reconstruction or Dept. of Provincial Secretary-Treasurer; Que., Bureau of Statistics; Ont., Bureau of Statistics and Research, or Dept. of Travel and Publicity; Man., Dept. of Industry and Commerce, Travel and Publicity Bureau and Dept. of Provincial Secretary; Sask., Bureau of Publications; Alta., Publicity Bureau, Dept. of Economic Affairs, or Bureau of Statistics; B.C., Bureau of Economics and Statistics

All Provinces except Nfld., Que., Ont., Man.:—Depts. of Agriculture  
Nfld.:—Dept. of Natural Resources  
Que.:—Dept. of Agriculture, Information and Research Branch  
Dept. of Trade and Commerce  
Provincial Bureau of Statistics  
Ont.:—Dept. of Agriculture, Statistics and Publication Branch  
Man.:—Dept. of Agriculture, Publications Branch and Extension  
Alta.:—Dept. of Agriculture  
Provincial Bureau of Statistics  
Dominion Bureau of Statistics (summaries of provincial data).....

Nfld.:—Dept. of Education  
N.S.:—Dept. of Trade and Industry  
Handicrafts Division  
Nova Scotia College of Art  
N.B.:—Dept. of Industry and Reconstruction, Handicraft Division  
The New Brunswick Museum, Saint John  
Que.:—Provincial Secretary (rural handicrafts)  
Ont.:—Royal Ontario Museum  
Dept. of Education  
Man.:—Dept. of Agriculture (handicrafts)  
Sask.:—Dept. of Education, Adult Education Division  
Alta.:—Dept. of Economic Affairs (cultural activities)  
B.C.:—Provincial Museum (Indian handicrafts)



# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head of p. 1176

## ▲ SOURCES FOR FEDERAL DATA

## SUBJECT

## SOURCES FOR PROVINCIAL DATA ▲●

- ●...National Research Council  
Atomic Energy Control Board  
(policy, regulations)  
Atomic Energy Project (research studies)

### ATOMIC ENERGY

- .....Dept. of Transport  
Civil Aviation Division (controls, licences and facilities, such as radio aids and licences)  
Air Transport Board (licensing of commercial air services and the economic regulation of such air services)  
Bureau of Transportation Economics  
Trans-Canada Air Lines  
Dept. of National Defence  
Directorate of Public Relations (Air Force)

### AVIATION

Sask.:—Saskatchewan Government Airways

- ●...Dept. of National Health and Welfare  
Civil Aviation Medical Division
- ●...National Film Board (films and photographs)  
National Research Council  
Division of Mechanical Engineering (aeronautical research)
- ●...Dominion Bureau of Statistics

- Bank of Canada  
Industrial Development Bank  
Dept. of Finance  
Dept. of Insurance (for trust and loan business)  
Central Mortgage and Housing Corporation  
Post Office Department, Savings Branch
- ●...Dominion Bureau of Statistics (for summary statistics)

### BANKING Trust and Loan Companies

Nfld.:—Dept. of Finance  
Supreme Court, Registry of Deeds  
Ont.:—Province of Ontario Savings Office  
Attorney-General, Dept. of Insurance  
Alta.:—Government of Alberta Treasury Branches  
B.C.:—Dept. of Finance, Inspector of Trust Companies  
Dominion Bureau of Statistics (summaries of provincial data).....●□

### BIRTHS See "Vital Statistics"

### BLIND See "Old Age Pensions"

### BROADCASTING See "Radio"

- Dept. of Public Works  
Chief Architect's Branch  
Dept. of Resources and Development  
Central Mortgage and Housing Corporation

### BUILDING CONSTRUCTION

Ont.:—Dept. of Labour, Factory Inspection Branch  
Dept. of Planning and Development, Community Planning Branch  
Man.:—Dept. of Labour  
B.C.:—Dept. of Labour, Factory Inspection Branch  
Dominion Bureau of Statistics (summaries of provincial data).....●□

- ●...National Research Council, Division of Building Research (materials of construction, building codes; soil and snow mechanics)
- ●...Dominion Bureau of Statistics

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head of p. 1176

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA▲●
<ul style="list-style-type: none"> <li>●.....Department of Transport Canal Services</li> <li>□●...Dominion Bureau of Statistics</li> </ul>	CANALS	
<ul style="list-style-type: none"> <li>□○...Dept. of Citizenship and Immigration Canadian Citizenship Registration Branch</li> <li>Canadian Citizenship Branch</li> </ul>	CITIZENSHIP See "Population"	
	CIVIL AVIATION See "Aviation"	
<ul style="list-style-type: none"> <li>●.....Dept. of Transport Meteorological Division, Toronto</li> </ul>	CLIMATE	
<ul style="list-style-type: none"> <li>□○...Dept. of Mines and Technical Surveys Geological Survey, Mines Branch</li> <li>□●...National Film Board (films, filmstrips, photographs) Dominion Coal Board</li> <li>□●...Dominion Bureau of Statistics</li> </ul>	COAL	<ul style="list-style-type: none"> <li>N.S., Que., Ont.:—Dept. of Mines</li> <li>N.B.:—Dept. of Lands and Mines</li> <li>Man.:—Dept. of Mines and Natural Resources</li> <li>Sask.:—Dept. of Natural Resources and Industrial Development</li> <li>Alta.:—Dept. of Mines and Minerals</li> <li>B.C.:—Dept. of Lands and Forests</li> <li>Dept. of Mines</li> <li>Dominion Bureau of Statistics (summaries of provincial data).....●□</li> </ul>
<ul style="list-style-type: none"> <li>□●...Dept. of Resources and Development Development Services Branch (wireless communications in the Northwest Territories and Yukon, and telephones in National Parks)</li> <li>●.....Dept. of Transport Board of Transport Commissioners (regulation of certain telegraph and telephone companies) Radio Division Telegraph Branch (telegraph service in remote areas)</li> <li>□●...Dominion Bureau of Statistics</li> </ul>	COM- MUNICATIONS For 'Post Office' and 'Mail' See "Post Office"	<ul style="list-style-type: none"> <li>P.E.I.:—Dept. of Industry and Natural Resources</li> <li>Ont.:—Municipal Board and Bureau of Statistics and Research</li> <li>Man.:—Manitoba Telephone System</li> <li>Sask.:—Dept. of Telephones and Telegraphs</li> <li>Alta.:—Dept. of Railways and Telephones</li> </ul>
<ul style="list-style-type: none"> <li>□.....Dept. of National Health and Welfare Physical Fitness Division (recreational layouts and facility suggestions) Federal District Commission National Film Board (<i>Capital Plan</i>) Central Mortgage and Housing Corporation</li> </ul>	COMMUNITY PLANNING	<ul style="list-style-type: none"> <li>P.E.I.:—Dept. of Industry and Natural Resources</li> <li>N.S.:—Dept. of Municipal Affairs</li> <li>Ont.:—Dept. of Planning and Development, Community Planning Branch</li> <li>Man.:—Dept. of Municipal Commissioner</li> <li>Sask.:—Dept. of Education</li> <li>Alta.:—Dept. of Public Works, Town Planning Board</li> <li>B.C.:—Dept. of Trade and Industry Regional Development Division</li> </ul>



# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head of p. 1176

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA▲●
<ul style="list-style-type: none"> <li>□●...Dept. of Resources and Development Development Services Branch Forestry Branch Federal District Commission</li> <li>□○●Dept. of Agriculture Experimental Farms Service Economics Division Prairie Farm Rehabilitation Administration</li> </ul>	CONSERVATION	<p>N'f'Id.:—Dept. of Natural Resources P.E.I.:—Dept. of Industry and Natural Resources N.S.:—Dept. of Lands and Forests N.B.:—Dept. of Lands and Mines Que.:—Dept. of Lands and Forests Dept. of Game and Fisheries Dept. of Hydraulic Resources Ont.:—Dept. of Lands and Forests Dept. of Planning and Development, Conservation Branch Ontario Agricultural College, Guelph Man.:—Dept. of Mines and Natural Resources Sask.:—Dept. of Natural Resources and Industrial Development Alta.:—Dept. of Lands and Forests B.C.:—Dept. of Lands and Forests</p>
<ul style="list-style-type: none"> <li>Dept. of Secretary of State Privy Council</li> <li>●...Public Archives</li> <li>□●...Dominion Bureau of Statistics</li> </ul>	CONSTITUTION	<p>All Provinces except Man.:— Depts. of Attorney General Man.:—Provincial Secretary</p>
<ul style="list-style-type: none"> <li>□○●...Dept. of Agriculture Economics Division</li> </ul>	CO-OPERATIVES	<p>N'f'Id.:—Dept. of Fisheries and Co-operatives Que.:—Dept. of Agriculture Dept. of Trade and Commerce Provincial Bureau of Statistics Man.:—Dept. of Agriculture and Immigration</p>
<ul style="list-style-type: none"> <li>□●...Dominion Bureau of Statistics</li> </ul>	COST OF LIVING	<p>N'f'Id.:—Dept. of Supply</p>
<ul style="list-style-type: none"> <li>Dept. of Justice Clemency Branch The Penitentiary Commission Dept. of National Health and Welfare Research Division</li> <li>□●...Dominion Bureau of Statistics</li> </ul>	CRIME AND DELINQUENCY	<p>All Provinces:—Depts. of Attorney General Additional: N'f'Id., N.S.:—Depts. of Public Welfare Que.:—Dept. of Social Welfare and Youth Ont.:—Dept. of Reform Institutions Sask.:—Dept. of Social Welfare and Rehabilitation B.C.:—Dept. of Health and Welfare Dominion Bureau of Statistics (summaries of provincial data) ...●□</p>
<ul style="list-style-type: none"> <li>Dept. of Secretary of State (incorporation)</li> <li>Dept. of Trade and Commerce</li> </ul>	CROWN COMPANIES	<p>Man.:—Treasury Dept. Manitoba Telephone System Manitoba Power Commission Sask.:—Office of Chief Industrial Executive</p>
<ul style="list-style-type: none"> <li>Bank of Canada Dept. of Finance Royal Canadian Mint</li> <li>□●...Dominion Bureau of Statistics</li> </ul>	CURRENCY	

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head of p. 1176

▲ SOURCES FOR FEDERAL DATA

SUBJECT

SOURCES FOR PROVINCIAL DATA▲●

- ☐ ● Dept. of Agriculture  
Animal Husbandry Division  
Dairy Products Division  
Bacteriology and Dairy Research  
Division
- ☐ ●...Dominion Bureau of Statistics

DAIRYING

- N'f'ld.:—Dept. of Natural Resources
- P.E.I., N.S.:—Depts. of Agriculture
- N.B., Ont., Alta., B.C.:—Depts. of Agriculture, Dairy Branches (also Milk Control Board for Ont. and Man.)
- Que.:—Dept. of Agriculture  
Dairy Commission
- Dept. of Trade and Commerce
- Provincial Bureau of Statistics
- Sask.:—Dept. of Agriculture  
Dairy Commission
- Dominion Bureau of Statistics (summaries of provincial data).....●☐

DEATHS  
See "Vital Statistics"

- Dept. of National Defence  
Naval Information Division  
Directorate of Public Relations (Army)
- Directorate of Public Relations (Air Force)
- Defence Research Board
- ☐ ●...National Film Board (films and photographs)
- Dept. of Trade and Commerce  
Canadian Commercial Corporation  
Industrial Defence Board  
Canadian Arsenals Limited

DEFENCE

- Bank of Canada
- Dept. of Trade and Commerce  
Economic Research Division
- .....Dept. of Labour  
Economics and Research Branch  
Legislation Branch
- ☐ ●...Dept. of Mines and Technical Surveys
- Dept. of Resources and Development  
Development Services Branch  
Forestry Branch
- Dept. of National Health and Welfare  
Research Division
- ☐ ● Dept. of Agriculture  
Economics Division
- .....Dept. of Transport  
Bureau of Transport Economics
- ☐ ●...Dominion Bureau of Statistics

ECONOMIC  
RESEARCH

- N'f'ld.:—Dept. of Economic Development
- N.S.:—Nova Scotia Research Foundation
- N.B.:—Dept. of Industry and Reconstruction
- Ont.:—Bureau of Statistics and Research
- Man.:—Dept. of Mines and Natural Resources  
Bureau of Industry and Commerce  
Executive Council, Economic Advisor
- Sask.:—Economic Advisory and Planning Board
- Alta.:—Director of Industrial Development and Economic Research  
Dept. of Economic Affairs
- B.C.:—Dept. of Trade and Industry  
Bureau of Economics and Statistics

- Canadian Broadcasting Corporation (school broadcasts)
- ☐ ●...Dept. of Resources and Development  
Development Services Branch
- ☐ ●...Dept. of Mines and Technical Surveys
- ☐ ●...Dept. of National Health and Welfare
- ☐ ●...Dept. of Citizenship and Immigration  
Canadian Citizenship Branch  
Indian Affairs Branch  
Dept. of Veterans Affairs (veterans only)
- .....Dept. of Labour  
Canadian Vocational Training Branch
- ☐ ●...Dominion Bureau of Statistics

EDUCATION  
For 'Informational  
Films' See  
"Motion Pictures"

- All Provinces:—Depts. of Education (technical, visual, audio and all other phases of education)
- Additional:—Que.:—Dept. of Trade and Commerce  
Provincial Bureau of Statistics

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head of p. 1176

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA▲
<input type="checkbox"/> .....Dept. of Resources and Development Development Services Branch Special Projects Branch <input type="checkbox"/> .....National Film Board (films, film- strips and photographs) <input type="checkbox"/> .....Dominion Bureau of Statistics (central electric stations)	ELECTRIC POWER	P.E.I.:—Public Utility Commission N.B.:—Electric Power Commission N.S., Man., Sask., Alta., B.C.:— Power Commissions Ont.:—The Hydro-Electric Power Commission of Ontario Que.:—Hydro-Electric Commission N.W.T.:—Power Commission, Dept. of Mines and Technical Surveys, Ottawa Additional:—B.C.:—Dept. of Lands and Forests
●.....Dept. of Labour National Employment Service Economics and Research Branch <input type="checkbox"/> .....Dominion Bureau of Statistics	EMPLOYMENT	All Provinces:—Depts. of Agri- culture (farm labour) N'f'd.:—Dept. of Labour Que.:—Dept. of Labour, Provincial Employment Bureau
Dept. of Trade and Commerce Canadian Government Exhibition Commission <input type="checkbox"/> ○●Dept. of Agriculture Information Service National Film Board	EXHIBITIONS	Man.:—Dept. of Agriculture, Extension Service
<input type="checkbox"/> ○●Dept. of Mines and Technical Surveys Mines Branch	EXPLOSIVES	B.C.:—Dept. of Mines
●.....Dept. of External Affairs Information Division	EXTERNAL AFFAIRS	
<input type="checkbox"/> ●.....Dept. of National Health and Welfare Family Allowances Division	FAMILY ALLOWANCES	
<input type="checkbox"/> ○●Dept. of Agriculture Field Husbandry Division Forage Crops Division Economic Fibre Division Plant Products Division <input type="checkbox"/> ●.....National Film Board (films and photographs) <input type="checkbox"/> ●.....Dominion Bureau of Statistics	FIELD CROPS	N'f'd.:—Dept. of Natural Resources P.E.I., N.S., N.B., Que., Man.:— Depts. of Agriculture Ont.:—Dept. of Agriculture, Crops, Seeds and Weeds Branch Sask., Alta., B.C.:—Depts. of Agriculture, Field Crop Branches Dominion Bureau of Statistics (sum- maries of provincial data).....●
Dept. of Finance Bank of Canada <input type="checkbox"/> ●.....Dominion Bureau of Statistics	FINANCE See also "Taxation"	N'f'd.:—Dept. of Finance P.E.I.:—Provincial Treasurer N.S.:—Dept. of Provincial Secretary N.B.:—Dept. of Provincial Secretary- Treasurer Que., Man., Sask., Alta.:— Provincial Treasury Depts. Ont.:—Provincial Treasurer's Dept. B.C.:—Finance Dept.



# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head of p. 1176

## ▲SOURCES FOR FEDERAL DATA

## SUBJECT

## SOURCES FOR PROVINCIAL DATA▲●

- Dept. of Insurance  
Fire Prevention Branch (fire loss statistics)
- ●...Dept. of Resources and Development  
Forestry Branch
- Board of Transport Commissioners  
(forest-fire protection along railway lines)

### FIRE PREVENTION

- All Provinces:**—Provincial Fire Marshals (for urban and rural fire losses)
- N.S., Alta., B.C.:**—Depts. of Lands and Forests
- N.B.:**—Dept. of Lands and Mines
- Que.:**—Dept. of Lands and Forests Forest Protection Service
- Ont.:**—Dept. of Lands and Forests Forest Protection Division
- Man.:**—Dept. of Mines and Natural Resources: Dept. of Labour, Fire Commissioner
- Sask.:**—Dept. of Natural Resources and Industrial Development

- .....Dept. of Fisheries  
Information Branch  
Fisheries Research Board of Canada
- ●...National Film Board (films, photo-displays, photographs)
- ●...Dominion Bureau of Statistics

### FISHERIES

- N'f'ld.:**—Dept. of Fisheries and Co-operatives
- P.E.I.:**—Dept. of Industry and Natural Resources
- N.S.:**—Dept. of Trade and Industry Fisheries Division
- N.B.:**—Dept. of Industry and Reconstruction, Fisheries Branch
- Que.:**—Dept. of Game and Fisheries Provincial Bureau of Statistics
- Ont.:**—Dept. of Lands and Forests Fish and Wildlife Division
- Man.:**—Dept. of Mines and Natural Resources Game and Fisheries Branch
- Sask.:**—Dept. of Natural Resources and Industrial Development Fisheries Branch
- Alta.:**—Dept. of Lands and Forests Fish and Game Branch
- B.C.:**—Dept. of Fisheries Provincial Game Commission

Foreign Exchange Control Board

### FOREIGN EXCHANGE

- ●...Dept. of Resources and Development Forestry Branch
- ●...National Film Board (films, film-strips, photo-displays and photographs)
- ●...Dominion Bureau of Statistics

### FOREST RESOURCES

- N'f'ld.:**—Dept. of Natural Resources
- P.E.I.:**—Dept. of Industry and Natural Resources
- N.S., Que., Ont., Alta., B.C.:**—Depts. of Lands and Forests
- N.B.:**—Dept. of Lands and Mines
- Man.:**—Dept. of Mines and Natural Resources
- Sask.:**—Dept. of Natural Resources and Industrial Development

### FRUIT See "Horticulture"

### FUEL See "Coal", "Oil", "Forest Resources"

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head of p. 1176

▲ SOURCES FOR FEDERAL DATA

- Dept. of Agriculture  
Marketing Service (fur grading)  
Experimental Farms Service  
(ranch fur production)
- ...National Film Board (photographs)
- ...Dominion Bureau of Statistics  
(general fur products statistics)

- Dept. of Mines and Technical  
Surveys  
Geographical Branch
- .....Public Archives

- .....Dept. of Mines and Technical  
Surveys  
Geological Survey

- Dept. of Secretary of State (Do-  
minion-Provincial channel of  
communication)
- Chief Electoral Office (Electoral Act  
and Voters Lists)
- Office of the Privy Council (*Canada  
Gazette*, as to appointments,  
orders in council, rules, regula-  
tions, etc.)
- ...Dept. of Citizenship and Immigra-  
tion  
Canadian Citizenship Branch

- ...Dept. of National Health and  
Welfare
- ...National Film Board (films, film-  
strips, photo-displays and photo-  
graphs)
- ...Dominion Bureau of Statistics  
(hospital statistics)

- .....Public Archives
- ...Dept. of Resources and Development  
Development Services Branch  
(historic sites and monuments)
- Dept. of National Defence  
Directorate of Public Relations  
(war histories, official war  
summaries, etc.)
- ...Dept. of Citizenship and Immigra-  
tion  
Canadian Citizenship Branch
- ...Dominion Bureau of Statistics

SUBJECT

FUR FARMING  
See "Trapping"

GEOGRAPHY

GEOLOGY

GOVERNMENT  
For 'Senate of  
Canada', 'House of  
Commons', and  
'Library of  
Parliament' See  
"Parliament"

HEALTH  
For 'Health of  
Veterans'  
See "Veterans  
Affairs"

HIGHWAYS  
See  
"Transportation"

HISTORY

SOURCES FOR PROVINCIAL DATA▲●

N'f'ld.:—Dept. of Natural Resources  
P.E.I., N.B., Que., Alta., B.C.:—  
Depts. of Agriculture  
N.S., Ont.:—Depts. of Lands and  
Forests  
Man.:—Dept. of Mines and Natural  
Resources  
Sask.:—Dept. of Natural Resources

Man.:—Dept. of Mines and Natural  
Resources  
Alta.:—Geographic Board  
B.C.:—Dept. of Lands and Forests

N'f'ld.:—Dept. of Natural Resources  
N.S., B.C.:—Depts. of Mines  
N.B.:—Dept. of Lands and Mines  
Que.:—Dept. of Mines  
Geological Surveys Branch  
Ont.:—Dept. of Mines  
Geological Branch  
Man.:—Dept. of Mines and Natural  
Resources  
Sask.:—Dept. of Natural Resources  
and Industrial Development  
Alta.:—Dept. of Mines and Minerals

N'f'ld.:—Dept. of Provincial Affairs  
P.E.I.:—Provincial Secretary  
N.S., Ont., Man., Sask., Alta.,  
B.C.:—Depts. of Provincial  
Secretary  
N.B.:—Dept. of Provincial Secretary-  
Treasurer  
Que.:—Office of Provincial Secretary  
(For information re Government  
of the Northwest Territories and  
Yukon refer to—Dept. of Re-  
sources and Development, Develop-  
ment Services Branch, Ottawa)

N'f'ld., Que., Ont.:—Dept. of  
Health  
P.E.I.:—Dept. of Health and  
Welfare  
N.S., Sask., Alta.:—Depts. of  
Public Health  
N.B.:—Dept. of Health and Social  
Services  
Man.:—Dept. of Health and Public  
Welfare  
B.C.:—Dept. of Health (general)  
Dept. of Provincial Secretary  
(mental hospitals)

N'f'ld.:—Legislative Library  
Gosling Memorial Library  
N.S.:—Public Archives  
Ont.:—Legislative Library  
Bureau of Statistics and Research  
Provincial Archivist  
Man.:—Provincial Library and Ar-  
chives  
Sask.:—Archives Board  
Alta.:—Archives, Provincial Library  
B.C.:—Dept. of Education  
Provincial Archivist

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head of p. 1176

## ▲ SOURCES FOR FEDERAL DATA

## SUBJECT

## SOURCES FOR PROVINCIAL DATA▲●

<input type="checkbox"/> ○●Dept. of Agriculture Marketing Service, Fruit and Vegetable Division Experimental Farms Service, Horticulture Division <input type="checkbox"/> ●...Dominion Bureau of Statistics	<div>HORTICULTURE</div>	N'f'ld.:—Dept. of Natural Resources P.E.I., Man.:—Depts. of Agriculture N.S., N.B., Alta., B.C.:— Depts. of Agriculture, Horticultural Branches Que.:—Dept. of Agriculture, Fruit Branch Ont.:—Dept. of Agriculture, Agri- culture and Horticulture Branches
<input type="checkbox"/> ●...Dept. of Citizenship and Immigra- tion Immigration Branch District Superintendents of Immi- gration, Halifax, Montreal, Toronto, Winnipeg and Van- couver ●.....Dept. of Labour Immigration-Labour Committee <input type="checkbox"/> ●...Dominion Bureau of Statistics	<div>IMMIGRATION</div>	Ont.:—Dept. of Planning and De- velopment Man.:—Dept. of Agriculture and Immigration Alta.:—Dept. of Economic Affairs, Dominion Bureau of Statistics (summaries of provincial data) ...●□
Dept. of Insurance (Dominion com- panies, Government Civil Ser- vice insurance) ●.....Dept. of Labour Annuities Branch Dept. of Veterans Affairs Dept. of Trade and Commerce Export Credits Insurance Cor- poration <input type="checkbox"/> ●...Dominion Bureau of Statistics (sum- mary statistics of all types of insurance)	<div>INSURANCE, LIFE, FIRE, ETC. For 'Unemployment Insurance' See "Labour"</div>	N'f'ld.:—Dept. of Finance P.E.I., N.S., N.B., B.C. (for Provincial Companies):—Super- intendents of Insurance Que. (for Provincial Companies):— Provincial Treasury Dept., In- surance Branch Ont. (for Provincial Companies):— Dept. of Insurance Man. (for Provincial Companies):— Dept. of Public Works, Super- intendent of Insurance Sask. (for Provincial Companies):— Dept. of Social Welfare Government Insurance Office Alta. (for Provincial Companies):— Dept. of Provincial Secretary, Superintendent of Insurance
<input type="checkbox"/> ○...Dept. of Mines and Technical Surveys <input type="checkbox"/> ●...National Film Board (films and photographs) <input type="checkbox"/> ●...Dominion Bureau of Statistics	<div>IRON AND STEEL</div>	N'f'ld.:—Dept. of Natural Resources N.S.:—Dept. of Mines Research Foundation Ont.:—Dept. of Planning and Development, Trade and Industry Branch Bureau of Statistics and Research B.C.:—Dept. of Mines
Dept. of Justice <input type="checkbox"/> ●...Dominion Bureau of Statistics	<div>JUSTICE</div>	All Provinces:—Depts. of Attorney General



DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head of p. 1176

▲ SOURCES FOR FEDERAL DATA

SUBJECT

SOURCES FOR PROVINCIAL DATA▲●

- .....Dept. of Labour
  - Information and Publicity Branch
  - Annuities Branch
  - Legislation Branch
  - Unemployment Insurance Commission
  - Economics and Research Branch
  - Canada Labour Relations Board
  - Canadian Vocational Training Branch
  - Industrial Relations Branch (conciliation of labour disputes, fair wages, etc.)
  - International Labour Organization Branch
  - National Employment Service
  - Dept. of Secretary of State (registration of trade unions)
- ...National Film Board (films, filmstrips, photo-displays and photographs)
- ...Dominion Bureau of Statistics

LABOUR

N'f'ld., N.S., N.B., Que., Ont.,  
Man., Sask., B.C.:—Depts.  
of Labour  
Alta.:—Dept. of Industries and  
Labour  
Additional:—Que., Ont., Alta.,  
B.C.:—Provincial Bureaus of  
Statistics

- ...Dept. of Resources and Development
- ...Dept. of Veterans Affairs
- ...Dept. of Citizenship and Immigration
  - Immigration Branch (for land settlement)

LANDS AND  
LAND  
SETTLEMENT

N'f'ld.:—Dept. of Natural Resources  
P.E.I.:—Commissioner of Public Lands  
N.S.:—Land Settlement Board  
N.B.:—Dept. of Lands and Mines  
Que., Ont., B.C.:—Depts. of  
Lands and Forests  
Man.:—Dept. of Mines and Natural  
Resources  
Sask.:—Dept. of Agriculture  
Alta.:—Dept. of Lands and Forests

- Royal Canadian Mounted Police  
(General law enforcement duties in any part of Canada; also acts on behalf of Attorneys General as Provincial Police in all provinces except Que., Ont., B.C. Enforces the law regarding traffic in drugs and liquor; acts on behalf of welfare of Eskimos in Arctic Islands.)

LAW  
ENFORCEMENT

All Provinces:—Depts. of Attorney  
General

- Clerk of the Privy Council
- Clerk of the Senate of Canada
- Clerk of the House of Commons

LEGISLATION

All Provinces except Man.:—  
Depts. of Attorney General  
Man.:—Legislative Counsel  
N.W.T., Yukon:—Dept. of Resources and Development, Ottawa

- Dept. of Resources and Development
  - Development Services Branch (Northwest Territories and Yukon)
- Dept. of Secretary of State (administration of Canada Temperance Act)
- ...Dominion Bureau of Statistics (statistical report covering Canada)

LIQUOR  
CONTROL

N'f'ld.:—Dept. of Finance  
P.E.I.:—Temperance Commission  
N.S., Que., Sask.:—Liquor Com-  
missions  
N.B., Ont., Alta., B.C.:—Liquor  
Control Boards  
Man.:—Liquor Control Commission

- Dept. of Agriculture
  - Live Stock and Live-stock Products Division (for marketing data)
  - Live-stock and Poultry Division (for breeding programs and testing data)
  - Health of Animals Division (for contagious diseases, meat inspection, etc.)
  - Animal Husbandry Division, Experimental Farms Service (for general information)
  - Animal Pathology Division (research in animal diseases)
- ...National Film Board (photographs)
- ...Dominion Bureau of Statistics

LIVE STOCK

N'f'ld.:—Dept. of Natural Resources  
P.E.I., N.B., Ont., Man., Sask.,  
Alta., B.C.:—Depts. of Agri-  
culture, Live-stock Branches  
N.S., Que.:—Depts. of Agriculture,  
Animal Husbandry Branches  
Additional:—Que., Alta., B.C.:—  
Provincial Bureaus of Statistics  
Dominion Bureau of Statistics  
(summaries of provincial data).....●□

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head of p. 1176

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA▲
<input type="checkbox"/> ●...Dept. of Resources and Development Forestry Branch <input type="checkbox"/> ●...Dominion Bureau of Statistics	LUMBERING	N'f'Id.:—Dept. of Natural Resources N.S., Que., Ont., B.C.:—Depts. of Lands and Forests N.B.:—Dept. of Lands and Mines Man.:—Dept. of Mines and Natural Resources Sask.:—Dept. of Natural Resources and Industrial Development Alta.:—Dept. of Lands and Forests
Dept. of Secretary of State (for incorporation of companies and Companies Act) Dept. of Trade and Commerce Industrial Development Division Industrial Development Bank <input type="checkbox"/> ●...National Research Council Canadian Patents and Develop- ment Limited (utilization of new scientific processes) <input type="checkbox"/> ●...National Film Board (films and photographs) <input type="checkbox"/> ●...Dominion Bureau of Statistics	MAIL See "Post Office"	
<input type="checkbox"/> ○...Dept. of Mines and Technical Surveys Geological Survey, Surveys and Mapping (geological, topo- graphical and general maps; hydrographic and navigation charts) <input type="checkbox"/> ○ ● Dept. of Agriculture (soil survey and economic survey maps) ●...Public Archives (maps relating to history and cartography) <input type="checkbox"/> ●...Dominion Bureau of Statistics (economic and census maps)	MANUFACTURING	P.E.I.:—Dept. of Industry and Natural Resources N.S.:—Dept. of Trade and Industry N.B.:—Dept. of Industry and Re- construction Que.:—Dept. of Trade and Commerce Ont.:—Dept. of Planning and De- velopment, Trade and Industry Branch Man.:—Dept. of Mines and Natural Resources Bureau of Industry and Commerce Sask.:—Economic Advisory and Planning Board Alta.:—Dept. of Economic Affairs B.C.:—Dept. of Trade and Industry Additional:—Que., Ont., Alta., B.C.:—Bureaus of Statistics Dominion Bureau of Statistics (sum- maries of provincial data).....●
<input type="checkbox"/> ○...Dept. of Mines and Technical Surveys Geological Survey, Surveys and Mapping (geological, topo- graphical and general maps; hydrographic and navigation charts) <input type="checkbox"/> ○ ● Dept. of Agriculture (soil survey and economic survey maps) ●...Public Archives (maps relating to history and cartography) <input type="checkbox"/> ●...Dominion Bureau of Statistics (economic and census maps)	MAPS AND CHARTS	N'f'Id.:—Dept. of Natural Resources N.S.:—Dept. of Mines, Research Foundation Ont.:—Dept. of Lands and Forests and Dept. of Mines Man.:—Dept. of Mines and Natural Resources, Surveys Branch Alta., B.C.:—Depts. of Lands and Forests
	MARRIAGES See "Vital Statistics"	
<input type="checkbox"/> ●...Dominion Bureau of Statistics	MERCHANDISING	Man.:—Dept. of Mines and Natural Resources Bureau of Industry and Commerce Alta.:—Dept. of Industries and Labour B.C.:—Dept. of Trade and Industry
<input type="checkbox"/> ○...Dept. of Mines and Technical Surveys Mines Branch Geological Survey <input type="checkbox"/> ●...Dominion Bureau of Statistics (for production data)	METALS (other than Iron and Steel)	N'f'Id.:—Dept. of Natural Resources N.S., Que., Ont., B.C.:—Depts. of Mines N.B.:—Dept. of Lands and Mines Man.:—Dept. of Mines and Natural Resources Sask.:—Dept. of Natural Resources and Industrial Development Alta.:—Dept. of Mines and Minerals Dominion Bureau of Statistics (sum- maries of provincial data).....●

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head of p. 1176

▲ SOURCES FOR FEDERAL DATA

SUBJECT

SOURCES FOR PROVINCIAL DATA▲●

## METEOROLOGY See "Weather"

## MINING AND MINERALS

- ○...Dept. of Mines and Technical Surveys  
Dept. of Resources and Development (for N.W.T.)
- ●...Dominion Bureau of Statistics (for production data)

N'f'd.:—Dept. of Natural Resources  
N.S., Que., Ont., B.C.:—Depts. of Mines  
N.B.:—Dept. of Lands and Mines  
Man.:—Dept. of Mines and Natural Resources  
Sask.:—Dept. of Natural Resources and Industrial Development  
Alta.:—Dept. of Mines and Minerals  
Dominion Bureau of Statistics (summaries of provincial data)...●□

- ●...Dept. of National Health and Welfare  
Physical Fitness Division  
*Maintains a library of evaluated films in the fitness and recreation field. Provides a film library service on a 'preview with a view to purchase' basis. Cumulative catalogue available.*
- ●...National Film Board  
*Produces and distributes films, photographs, filmstrips and other visual materials of national and cultural interest, newsreel films, theatrical and short documentary films.*

## MOTION PICTURES

N.S., Que., Alta. and B.C. produce educational or informational films.  
N'f'd., P.E.I., N.B., Ont. and Man. buy such films but do not produce them.  
Sask.:—Saskatchewan Film Board  
Alta.:—Dept. of Economic Affairs  
Photographic Branch  
*All provinces have Motion Picture Censorship Boards for censoring films prior to public exhibition. Details may be obtained by application to the province concerned: Depts. of Education and Travel, Provincial Censorship Boards and Regional N.F.B. Offices.*

## MUNICIPAL AFFAIRS

- ●...Dominion Bureau of Statistics  
Public Finance Division

N.S., Que., Ont., Sask., Alta., B.C.:—Depts. of Municipal Affairs  
N.B.:—Dept. of Federal and Municipal Relations  
Man.:—Dept. of Municipal Commissioner

## NATIONAL INCOME

- ●...Dominion Bureau of Statistics

## NATURALIZATION See also "Population"

- ○...Dept. of Citizenship and Immigration  
Canadian Citizenship Registration Branch

- Dept. of Public Works (construction and operation of graving docks),  
Chief Engineer's Branch (for marine works construction)
- .....Dept. of Transport (radio aids to navigation)  
Marine and Canal Services (aids to marine navigation)  
Canadian Maritime Commission
- ●...National Research Council  
Division of Radio and Electrical Engineering (applications of merchant marine radar)
- ○...Dept. of Mines and Technical Surveys  
Hydrographic Service

## NAVIGATION



# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head of p. 1176

## ▲ SOURCES FOR FEDERAL DATA

## SUBJECT

## SOURCES FOR PROVINCIAL DATA▲

- ☐ ●...Dept. of National Health and Welfare  
                   Nutrition Division  
☐ ○ ● Dept. of Agriculture

### NUTRITION

- N'f'ld., Que., Ont.:—Depts. of Health  
 P.E.I.:—Dept. of Health and Welfare  
 N.S.:—Dept. of Public Health  
 N.B.:—Dept. of Health and Social Services  
 Man.:—Dept. of Health and Public Welfare  
 Sask.:—Dept. of Public Health, Nutrition Division  
 Alta.:—Dept. of Public Health  
 B.C.:—Dept. of Health and Welfare

### OCCUPATIONAL INFORMATION See "Employment"

- Dept. of Resources and Development (for N.W.T.)  
☐ ○...Dept. of Mines and Technical Surveys  
                   Geological Survey, Mines Branch  
☐ ●...National Film Board  
☐ ●...Dominion Bureau of Statistics

### OIL

- N.S., Ont.:—Depts. of Mines  
 N.B.:—Dept. of Lands and Mines  
 Man.:—Dept. of Mines and Natural Resources  
 Sask.:—Dept. of Natural Resources and Industrial Development  
 Alta.:—Dept. of Mines and Minerals  
 B.C.:—Dept. of Lands and Forests  
 Dominion Bureau of Statistics (summaries of provincial data).....●

- ☐ ●...Dept. of National Health and Welfare  
                   Old Age Pensions Division

### OLD AGE PENSIONS (Including Pensions for the Blind)

- N'f'ld.:—Dept. of Public Welfare  
 P.E.I.:—Old Age Pension Commission, Charlottetown  
 N.S.:—The Old Age Pensions Board, Halifax  
 N.B.:—The Old Age Pensions Board, Fredericton  
 Que.:—Quebec Old Age Pensions Commission, Quebec  
 Ont.:—Ontario Old Age Pensions Commission, Toronto  
 Man.:—The Old Age and Blind Persons' Pensions Board, Winnipeg  
 Sask.:—Social Welfare Board, Regina  
 Alta.:—Old Age Pensions Board, Edmonton  
 B.C.:—Old Age Pension Board, Vancouver  
 Yukon:—Old Age Pension Board, Dawson  
 N.W.T.:—Dept. of National Health and Welfare, Ottawa

- ☐ ●...Dept. of Resources and Development  
                   Development Services Branch  
                   National Film Board

### PARKS

- Que.:—Dept. of Game and Fisheries  
 Ont., B.C.:—Depts. of Lands and Forests  
 Man.:—Dept. of Mines and Natural Resources  
 Sask.:—Dept. of Natural Resources, Parks Branch  
 Alta.:—Dept. of Public Works.

Senate of Canada  
 House of Commons  
 Library of Parliament

### PARLIAMENT

- N'f'ld.:—Dept. of Provincial Affairs  
 P.E.I., N.B., Man., Sask., Alta., B.C.:—Legislative Assemblies  
 N.S., Ont.:—Houses of Assembly  
 Que.:—Legislative Council  
                   Legislative Assembly

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head of p. 1176

▲ SOURCES FOR FEDERAL DATA                      SUBJECT                      SOURCES FOR PROVINCIAL DATA▲●

Dept. of Secretary of State

PATENTS, COPY-  
RIGHTS AND  
TRADE MARKS

Post Office Department  
Philatelic Division of the Financial  
Branch

PHILATELY

○.....Dept. of Mines and Technical  
Surveys  
The National Air Photographic  
Library  
National Film Board  
*Maintains an extensive library  
of photographs covering all  
branches of production and  
national effort*  
Public Archives

PHOTOGRAPHIC  
MATERIAL

□●...Dept. of National Health and  
Welfare  
Physical Fitness Division  
National Council of Physical Fitness  
Dept. of Resources and Development  
Development Services Branch  
●...National Film Board (filmstrip and  
photo-display)

PHYSICAL  
FITNESS AND  
RECREATION  
*See also "Health"*

P.E.I., N.B., Ont., Sask.,  
B.C.:—Depts. of Education  
N.S.:—Dept. of Public Health  
Man.:—Dept. of Health and Public  
Welfare  
N.W.T.:—Dept. of Resources and  
Development  
Development Services Branch

□●...Dominion Bureau of Statistics (for  
all census population statistics)  
Dept. of Resources and Development  
Development Services Branch (for  
Eskimos)  
Dept. of Citizenship and Immi-  
gration  
Canadian Citizenship Branch  
Citizenship Registration Branch  
Indian Affairs Branch (for Indians)  
●.....Public Archives (early census and  
settlement records)

POPULATION

Que.:—Dept. of Health, Vital Sta-  
tistics Branch  
Dept. of Trade and Commerce  
Provincial Bureau of Statistics  
Ont.:—Bureau of Statistics and  
Research  
Alta.:—Dept. of Industries and  
Labour  
Provincial Statistician

Post Office Department  
Administration Branch (general  
postal information, postage  
rates, both domestic and  
foreign, etc.)  
Communications Branch (air,  
land and railway mail services)  
Operations Branch (information  
regarding postal service to the  
public and hours of service)

POST OFFICE

○●Dept. of Agriculture  
Poultry Division, Experimental  
Farms Service (for general  
information)  
Live Stock and Live-stock Pro-  
ducts Division (breeding pro-  
grams, hatchery regulations, etc.)  
Animal Pathology Division (for  
poultry diseases)  
●...National Film Board (films and  
photographs)  
●...Dominion Bureau of Statistics

POULTRY

N'f'Id.:—Dept. of Natural Resources  
P.E.I., N.S., Man.:—Depts. of  
Agriculture  
N.B., Que., Sask., Alta., B.C.:—  
Depts. of Agriculture, Poultry  
Branches  
Ont.:—Ontario Agricultural College  
(Guelph), Poultry Division  
Dominion Bureau of Statistics (sum-  
maries of provincial data).....●□

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head of p. 1176

▲ SOURCES FOR FEDERAL DATA

SUBJECT

SOURCES FOR PROVINCIAL DATA ▲

POWER  
See  
"Electric Power"

- ☐ ☐ Dept. of Agriculture  
Marketing Service (prices of  
farm products)  
☐ .....Dominion Bureau of Statistics

PRICES

PUBLIC HEALTH  
See "Health"

- ☐ .....Dominion Bureau of Statistics

PUBLIC UTILITIES  
See also  
"Electric Power"

P.E.I.:—Public Utilities Board  
 N.S.:—Board of Commissioners of  
Public Utilities  
 N.B.:—Public Utilities Commission  
 Ont.:—Ontario Municipal Board  
 Man.:—Municipal and Public Util-  
ities Board  
 Sask.:—Office of Chief Industrial  
Executive  
 Alta.:—Board of Public Utilities  
Commissioners  
 Natural Gas Utilities Board  
 B.C.:—Public Utilities Commission

PUBLIC WELFARE  
See "Welfare"

- Dept. of Labour  
Industrial Relations Branch (fair  
wages)  
 Dept. of Public Works  
☐ .....Dept. of Transport  
Marine and Canal Services

PUBLIC WORKS

N'f'd., P.E.I., N.B., Que.,  
 Ont., Man., Sask., Alta.,  
 B.C.:—Depts. of Public Works  
 N.S.:—Dept. of Highways and Public  
Works

- ☐ .....Dept. of Transport  
Radio Division (all matters  
affecting licences and facilities)  
 Canadian Broadcasting Corporation  
☐ ☐ .....National Film Board  
☐ ☐ .....National Research Council  
Division of Radio and Electrical  
Engineering (radio science and  
its application to industry)  
☐ ☐ .....Dominion Bureau of Statistics

RADIO

Que.:—Quebec Radio Bureau  
 Alta.:—Alberta Government Radio  
Station

RAILWAYS  
See  
"Transportation"



DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head of p. 1176

▲ SOURCES FOR FEDERAL DATA

SUBJECT

SOURCES FOR PROVINCIAL DATA ▲●

Dept. of Resources and Development  
Special Projects Branch  
Wartime Housing Limited  
Central Mortgage and Housing Corporation

RECON-  
STRUCTION

Nfld.:—Dept. of Economic Development  
P.E.I.:—Dept. of Industry and Natural Resources  
N.S.:—Depts. of Agriculture and Marketing, and Trade and Industry  
N.B.:—Dept. of Industry and Reconstruction  
Que.:—Depts. of Lands and Forests, Labour, Roads, Trade and Commerce, Social Welfare and Youth  
Sask.:—Dept. of Reconstruction and Rehabilitation, Reconstruction Division  
B.C.:—Dept. of Trade and Industry Regional Development Division

RECREATION  
See  
"Physical Fitness"

RESEARCH  
See "Economic Research" and  
"Scientific Research"

□●...National Research Council  
(Laboratory investigations in applied biology, chemistry, mechanical engineering, including aeronautics and hydraulics, physics, radio and electrical engineering, medical research, atomic energy, etc.)

*Inquiries for general research information should be addressed to the Technical Information Service.*

□○ Dept. of Mines and Technical Surveys

Dept. of Resources and Development Forestry Branch  
Development Services Branch

□○● Dept. of Agriculture  
Science Service (for research in animal and plant pathology, bacteriology, chemistry, entomology, etc.)

Experimental Farms Service (for research in agricultural engineering, crop production, breeding and genetics, plant and animal nutrition, etc.)

●.....Dept. of Transport (aviation, radio, meteorology)

Dept. of National Defence  
Defence Research Board

SCIENTIFIC  
RESEARCH

N.S.:—Nova Scotia Research Foundation  
Que.:—Dept. of Trade and Commerce Scientific Research Bureau  
Ont.:—Ontario Research Commission  
Ontario Research Foundation  
Man.:—Various Depts. such as Health and Welfare, Mines and Natural Resources, Agriculture  
Sask.:—Research Council  
Alta.:—Alberta Research Council  
B.C.:—Dept. of Trade and Industry Research Council

SOCIAL  
SECURITY  
See  
"Family Allowances"  
"Unemployment"  
"Veterans Affairs"

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head of p. 1176

▲ SOURCES FOR FEDERAL DATA

SUBJECT

SOURCES FOR PROVINCIAL DATA ▲●

## SOCIAL WELFARE

See "Welfare"

## SPORTS

See

"Physical Fitness"  
and "Tourist Trade"

Dept. of Trade and Commerce  
Standards Division (for inquiries  
on electricity and gas inspection,  
weights and measures, precious  
metals marking, commodity  
standards and national trade  
mark matters.

□●...Dept. of National Health and  
Welfare (for standards and  
method of control of quality or  
potency of food and drugs)

□○●Dept. of Agriculture (for inquiries  
on standards for meat and  
canned food, fruit, honey, maple  
products, vegetables, dairy  
products, poultry, etc.)

●.....Dept. of Transport (standards in  
radio frequencies, standards in  
steamship inspection)

□●...National Research Council (for  
Canadian Government purchasing  
standards)

## STANDARDS

## STEAMSHIPS

See

"Transportation"

## SUCCESSION DUTIES

See "Taxation"

Dept. of National Revenue

## TAXATION

N'f'd.:—Dept. of Finance  
P.E.I.:—Provincial Treasurer  
N.S.:—Dept. of Provincial Secretary  
N.B.:—Dept. of Provincial Secretary-  
Treasurer  
Que., Man., Sask., Alta.:—  
Provincial Treasury Depts.  
Ont.:—Provincial Treasurer's Dept.  
Alta.:—Provincial Secretary  
B.C.:—Finance Dept.

## TELEGRAPHS AND TELEPHONES

See

"Communications"

○.....Dept. of Mines and Technical  
Surveys  
Surveys and Mapping Branch

## TOPOGRAPHY

N'f'd.:—Dept. of Natural Resources  
Man.:—Dept. of Mines and Natural  
Resources  
B.C.:—Dept. of Lands and Forests

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head of p. 1176

## ▲ SOURCES FOR FEDERAL DATA

## SUBJECT

## SOURCES FOR PROVINCIAL DATA ▲●

- ...Dept. of Resources and Development  
Development Services Branch  
Canadian Government Travel  
Bureau
- ...National Film Board (films and  
photographs)
- ...Dominion Bureau of Statistics

### TOURIST TRADE

- N'f'd.:—Dept. of Economic Develop-  
ment
- P.E.I.:—Publicity and Travel Bureau
- N.S.:—Dept. of Trade and Industry
- N.B.:—Dept. of Lands and Mines,  
Bureau of Information and Tourist  
Travel
- Que.:—Provincial Tourist Bureau
- Ont.:—Dept. of Travel and Publicity
- Man.:—Dept. of Mines and Natural  
Resources  
Travel and Publicity Bureau
- Sask.:—Bureau of Publications,  
Tourist Branch
- Alta.:—Dept. of Economic Affairs  
Alberta Travel Bureau
- B.C.:—Dept. of Trade and Industry  
Government Travel Bureau

- Dept. of Trade and Commerce  
Trade Commissioner Service  
Commodities Branch (for exports,  
imports, priorities, controls,  
transportation, etc.)
- Agricultural Commodities Branch
- Economic Research and Develop-  
ment Branch (international  
trade relations, industrial de-  
velopment)
- Publicity  
Wheat and Grain Division  
Exhibition Division  
Canadian Commercial Corpora-  
tion
- Export Credits Insurance Cor-  
poration
- Standards Division (weights and  
measures)
- Canadian Government Travel  
Bureau
- Dept. of Secretary of State (for  
Companies Act and incor-  
poration of companies and of  
boards of trade)
- ...National Film Board (films and  
photos)
- ...Dominion Bureau of Statistics

### TRADE

- All Provinces except B.C.:—Pro-  
vincial Secretaries for Incorporation  
of Companies under Provincial Law
- B.C.:—Attorney-General's Depart-  
ment
- P.E.I.:—Dept. of Industry and  
Natural Resources
- N.S.:—Dept. of Trade and Industry
- N.B.:—Dept. of Industry and Recon-  
struction
- Que.:—Dept. of Trade and Com-  
merce
- Ont.:—Dept. of Planning and De-  
velopment  
Trade and Industry Branch
- Man.:—Dept. of Mines and Natural  
Resources  
Bureau of Industry and Commerce
- Sask.:—Dept. of Co-operatives  
Trade Services Division
- Alta.:—Dept. of Industries and  
Labour
- B.C.:—Dept. of Trade and Industry

- ...Dept. of Resources and Development  
Development Services Branch (for  
highways in National Parks)
- Special Projects Branch
- .....Dept. of Transport (railways, civil  
aviation, marine services, steam-  
ship inspection, canals, etc.)
- Board of Transport Commissioners  
(regulations re construction and  
operation of railways; rates of  
railways, express companies and  
certain inland water carriers;  
issuing of licences to certain in-  
land water carriers; regulations  
re construction of oil and gas  
pipe lines)
- Bureau of Transportation Eco-  
nomics
- Canadian Maritime Commission
- National Harbours Board
- Trans-Canada Air Lines
- ...National Film Board (films, film-  
strips and photographs)
- ...Dominion Bureau of Statistics  
(statistics of transportation  
including highways, motor-veh-  
icles)

### TRANSPORTA- TION

- N'f'd.:—Dept. of Public Works
- P.E.I.:—Dept. of Public Works and  
Highways
- N.S.:—Dept. of Highways and Public  
Works
- N.B.:—Dept. of Public Works,  
Highway Branch
- Que.:—Dept. of Roads  
Transportation and Communications  
Board
- Ont.:—Dept. of Highways  
Ontario Northland Transportation  
Commission
- Man.:—Dept. of Public Works, High-  
ways Branch  
Dept. of Mines and Natural Re-  
sources  
Municipal and Public Utilities Board
- Sask.:—Dept. of Highways and  
Transportation
- Alta.:—Dept. of Public Works, High-  
way Traffic Board
- B.C.:—Dept. of Railways, Board of  
Transport Commissioners, High-  
way Traffic Board, Public Utility  
Commission, Dept. of Public  
Works
- Dominion Bureau of Statistics (sum-  
maries of provincial data).....●□



# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head of p. 1176

## ▲ SOURCES FOR FEDERAL DATA

## SUBJECT

## SOURCES FOR PROVINCIAL DATA ▲●

- ☐ ●...Dept. of Resources and Development Development Services Branch
- ☐ ○...Dept. of Citizenship and Immigration Indian Affairs Branch
- ☐ ●...National Film Board (films and photographs)
- ☐ ●...Dominion Bureau of Statistics (for general trapping statistics)

### TRAPPING

See also  
"Fur Farming"

- N'f'ld.:—Dept. of Natural Resources
- P.E.I.:—Dept. of Agriculture
- N.S., Ont.:—Depts. of Lands and Forests
- N.B.:—Dept. of Lands and Mines
- Que.:—Dept. of Game and Fisheries
- Man.:—Dept. of Mines and Natural Resources
- Sask.:—Dept. of Natural Resources and Industrial Development
- Alta.:—Dept. of Lands and Forests
- B.C.:—Attorney-General's Dept., Provincial Game Commission
- Dominion Bureau of Statistics (summaries of provincial data).....●☐

### TRUST AND LOAN COMPANIES

See "Banking"

- .....Dept. of Labour Economics and Research Branch Unemployment Insurance Commission
- ☐ ●...Dominion Bureau of Statistics

### UNEMPLOYMENT

- N'f'ld.:—Dept. of Labour

- Canadian Pension Commission (The Pension Act)
- Dept. of Veterans Affairs Public Relations Branch (general information, rehabilitation, welfare, treatment, pensions, land settlement, gratuities, benefits, business and professional loans, war veterans allowances, Veterans Allowance Act)
- .....Dept. of Labour (unemployment insurance and out-of-work allowances, vocational training)
- ☐ ●...National Film Board (films and photographs)
- ☐ ○...Dept. of Citizenship and Immigration Indian Affairs Branch (for Indians)

### VETERANS AFFAIRS

- P.E.I.:—Provincial Secretary
- N.S.:—Dept. of Public Welfare
- N.B.:—Dept. of Health and Social Services
- Que.:—Dept. of Social Welfare and Youth
- Ont.:—Dept. of Public Welfare, Soldiers Aid Commission
- Sask.:—Dept. of Social Welfare Rehabilitation Division
- Alta.:—Veterans Welfare Advisory Commission
- B.C.:—Dept. of Provincial Secretary

- ☐ ●...Dominion Bureau of Statistics
- ☐ ●...Dept. of Resources and Development Development Services Branch (for the Northwest Territories and Yukon)
- Public Archives (early census records)

### VITAL STATISTICS

- N'f'ld.:—Dept. of Health
- P.E.I.:—Registrar of Births, Deaths and Marriages
- N.S., Sask., Alta.:—Depts. of Public Health Registrars General
- N.B.:—Dept. of Health and Social Service
- Que., B.C.:—Depts. of Health
- Ont.:—Dept. of Municipal Affairs, Vital Statistics Branch
- Man.:—Dept. of Health and Public Welfare
- Dominion Bureau of Statistics (summaries of provincial data)....●☐

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—concluded

For interpretation of symbols see head of p. 1176

▲ SOURCES FOR FEDERAL DATA                      SUBJECT                      SOURCES FOR PROVINCIAL DATA ▲●

<ul style="list-style-type: none"> <li>●.....Dept. of Labour Industrial Relations Branch (fair wages)</li> <li>Economics and Research Branch</li> <li>Legislation Branch</li> <li>□●.....Dominion Bureau of Statistics</li> </ul>	<p><b>WAGES</b></p>	<p>All Provinces except Alta.:— Depts. of Labour Alta.:—Dept. of Industries and Labour</p>
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<ul style="list-style-type: none"> <li>□●.....Dept. of Resources and Development Development Services Branch</li> <li>Special Projects Branch</li> </ul>	<p><b>WATER RESOURCES</b></p>	<p>N'f'ld.:—Dept. of Natural Resources Man.:—Dept. of Mines and Natural Resources Alta.:—Dept. of Agriculture B.C.:—Dept. of Lands and Forests</p>
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<ul style="list-style-type: none"> <li>●.....Dept. of Transport Meteorological Division, Toronto</li> </ul>	<p><b>WEATHER</b></p>
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<ul style="list-style-type: none"> <li>□●.....Dept. of National Health and Welfare</li> <li>●.....Dept. of Labour Unemployment Insurance Commission</li> <li>Annuities Branch</li> <li>□●.....Dept. of Resources and Development Development Services Branch (for Eskimos)</li> <li>□○.....Dept. of Citizenship and Immigration Indian Affairs Branch (for Indians)</li> <li>□●.....National Film Board (films and photographs)</li> </ul>	<p><b>WELFARE</b> For 'Welfare of Veterans' See "Veterans Affairs"</p>	<p>N'f'ld., N.S., Ont., Alta.:— Depts. of Public Welfare P.E.I., B.C.:—Depts. of Health and Welfare N.B.:—Dept. of Health and Social Services Que.:—Dept. of Social Welfare and Youth Man.:—Dept. of Health and Public Welfare Sask.:—Dept. of Social Welfare Yukon:—Yukon Territorial Council, Dawson N.W.T.:—Northwest Territories Council, Ottawa, Ont. Dominion Bureau of Statistics (summaries of provincial data).....●□</p>
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<ul style="list-style-type: none"> <li>Dept. of Resources and Development Lands and Development Services</li> </ul>	<p><b>WILD LIFE</b></p>
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<ul style="list-style-type: none"> <li>●.....Dept. of Labour</li> <li>●.....Dept. of Transport Government Employees' Compensation</li> </ul>	<p><b>WORKMEN'S COMPENSATION</b></p>	<p>N'f'ld.:—Dept. of Labour Workmen's Compensation Board: P.E.I.:—Charlottetown N.S.—Halifax; N.B.—Saint John; Ont.—Toronto; Man.—Winnipeg; Sask.—Regina; Alta.—Edmonton; B.C.—Vancouver Workmen's Compensation Commission: Que.—Quebec</p>
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### Section 3.—Acts Administered by Federal Departments

#### List of the Principal Acts of Parliament Administered by Departments of the Government of Canada, as Compiled from Information Supplied by the Respective Departments.

NOTE.—Copies of individual Acts of Parliament and amendments may be obtained from the King's Printer at prices of from 10 cents to \$1.50 per copy according to number of pages.

Department, Year and Chapter		Name of Act	Department, Year and Chapter		Name of Act	
<b>Agriculture—</b> R.S.C. 1927	4	Department of Agriculture.	<b>External Affairs—</b> R.S.C. 1927	65	Department of External Affairs with amendments.	
	5	Pest Control Products as amended.				
	6	Animal Contagious Diseases as amended.	<b>Finance—</b> R.S.C. 1927	14	Appropriation (Annual)	
	25	Cold Storage.		16	Quebec Savings Banks with amendments.	
	36	Criminal Code, Sect. 235, Race-Track Betting as amended.		16	Bills of Exchange as amended.	
	45	Dairy Industry with amendments.		24	Civil Service Superannuation with amendments.	
	47	Destructive Insect and Pest with amendments.		40	Currency.	
	61	Experimental Farm Stations as amended.		66	Canadian Farm Loan with amendments.	
	69	Fertilizers with amendments.		71	Department of Finance and Treasury Board as amended.	
	77	Meat and Canned Foods with amendments.		102	Interest.	
	80	Fruit.		152	Pawnbrokers (not regularly administered by Department but under jurisdiction of Minister of Finance).	
1932	49	Live Stock Pedigree.		179	Special War Revenue (in part), with amendments.	
1933	26	Hay and Straw Inspection.		183	Savings Deposits Returns.	
1935	23	Prairie Farm Rehabilitation with amendments.		184	Satisfied Securities (not regularly administered by Department but under jurisdiction of Minister of Finance).	
	62	Fruits, Vegetables and Honey.		192	Provincial Subsidies.	
1937	30	Feeding Stuffs with amendments.		213	Winding-up (Insolvent Companies) with amendments.	
	40	Seeds with amendments.		22-23	Canadian National Railways Financing and Guarantee.	
1938	32	Inspection and Sale as amended.	1931	27	Consolidated Revenue and Audit.	
1939	13	Cheese and Cheese Factory Improvement with amendments.		55	Tariff Board with amendments.	
	28	Agricultural Products Co-operative Marketing as amended.	1932	33	Gold Export as amended.	
	34	Wheat Co-operative Marketing as amended.		43	Bank of Canada with amendments.	
	47	Live Stock and Live Stock Products.	1935	52	Canadian Fisherman's Loan.	
	50	Prairie Farm Assistance with amendments.	1938	33	Municipal Improvements Assistance with amendments.	
1942	10	Wheat Acreage Reduction as amended.	1943	26	Farmers' Creditors Arrangement.	
1944	29	Agricultural Prices Support as amended.	1944	30	Bank.	
1945	24	Maple Products Industry.		41	Farm Improvement Loans with amendments.	
1947	10	Agricultural Products (Annual) with amendments.		44	Industrial Development Bank.	
	61	Maritime Marshland Rehabilitation.	1945	11	Bretton Woods Agreements.	
1949	16	Agricultural Products Marketing.	1946	53	Foreign Exchange Control with amendments.	
				69	Veterans' Business and Professional Loans as amended.	
<b>Auditor General—</b> 1931	27	Consolidated Revenue and Audit.		1947	30	Canadian National Railways Refunding.
				58	Dominion - Provincial Tax Rental Agreements.	
<b>Citizenship and Immigration—</b> R.S.C. 1927	37*	St. Regis Indian Reservation.	1948	7-48	Emergency Exchange Conservation (in part).	
	93	Immigration.				
	94	Immigration Aid Societies.	<b>Fisheries—</b> R.S.C. 1927	43	Customs and Fisheries Protection (as far as it relates to fisheries).	
	98	Indian.		72	Fish Inspection with amendments.	
1934	29	Caughnawaga Indian Reserve.				
1943-44	19	British Columbia Indian Reserves Mineral Resources.				
1946	15	Canadian Citizenship.				

\* Not included in the Revised Statutes of 1927.



List of the Principal Acts of Parliament Administered by Departments of the Government of Canada, as Compiled from Information Supplied by the Respective Departments.—continued

Department, Year and Chapter	Name of Act	Department, Year and Chapter	Name of Act
<b>Fisheries—conc.</b>		<b>Justice—concluded</b>	
R.S.C. 1927	74 Deep Sea Fisheries.	R.S.C. 1927	99 Inquiries as amended.
	75 Northern Pacific Halibut Fishery Protection.		106 Department of Justice.
	77 Meat and Canned Foods, as amended, so far as it relates to fish and shellfish.		107 Solicitor General's.
	140 Navigable Waters' Protection (in part).		123 Lord's Day.
1930	10 Sockeye Salmon Fisheries (Convention).		127 Marriage and Divorce as amended.
	21 Department of Fisheries.		158 Petition of Right.
1932	42 Fisheries with amendments.		160 Royal Canadian Mounted Police with amendments.
1937	31 Fisheries Research Board as amended.		163 Prisons and Reformatories with amendments.
	36 Northern Pacific Halibut Fishery (Convention).		197 Ticket of Leave as amended.
1938	39 Pelagic Sealing (Convention).		199 Tobacco Restraint.
1939	51 Salt Fish Board.		206 War Measures.
1944	42 Fisheries Prices Support.	1929	46 Juvenile Delinquents with amendments.
1948	21 Pelagic Sealing (Provisional Agreement).		62 Administration of Justice in the Yukon.
		1930	12 Criminal Procedure in Alberta.
			14 Divorce (Ontario).
			15 Divorce Jurisdiction.
		1932	18 Debts Due to the Crown as amended.
<b>Insurance—</b>			31 Admiralty as amended.
R.S.C. 1927	23 Civil Service Insurance.	1934	4 British Columbia Divorce Appeals.
	28 Loan Companies with amendments.	1937	6 Penitentiary with amendments.
	29 Trust Companies with amendments.		49 Official Secrets.
	135 Money Lenders (under the jurisdiction of the Minister of Finance. The Act is not regularly administered by the Department of Insurance but due to its indirect connection with the Small Loans legislation is now listed under this Department).		28 Compensation (Defence).
			43 Treachery.
		1940	12 Canada Prize.
		1945	56 Judges with amendments.
		1946	16 Continuation of Transitional Measures (in part).
		1947	6 The Statute Law Amendment (Newfoundland).
	179 Special War Revenue, Part III, with amendments, relating to taxes on insurance premiums.		
	213 Winding-up (Insurance), (in part).	<b>King's Printer and Controller of Stationery—</b>	
1932	45 Department of Insurance.	R.S.C. 1927	2 Publication of Statutes.
	46 Canadian and British Insurance Companies.		162 Public Printing and Stationery.
	47 Foreign Insurance Companies.	<b>Labour—</b>	
1939	23 Small Loans.	R.S.C. 1927	7 Government Annuities as amended.
			110 Conciliation Labour.
<b>Justice—</b>			111 Department of Labour as amended.
R.S.C. 1927	1 Interpretation with amendments.		128 White Phosphorous Matches.
	11 Bankruptcy with amendments.		193 Technical Education Extension with amendments.
	26 Combines Investigation with amendments.		59 Vocational Education.
	34 Exchequer Court with amendments.	1931	14 Weekly Rest in Industrial Undertakings.
	35 Supreme Court with amendments.	1935	39 Fair Wages and Hours of Labour.
	36 Criminal Code with amendments.		44 Minimum Wages.
	37 Extradition.		63 Limitation of Hours of Work.
	38 Identification of Criminals.	1936	7 National Employment Commission.
	58 Escheats (under the jurisdiction of the Minister of Finance).		15 Unemployment Relief and Assistance as amended.
	59 Canada Evidence with amendments.	1937	44 Unemployment and Agricultural Assistance (Annual).
	64 Expropriation.	1939	35 Youth Training.
	81 Fugitive Offenders.	1940	44 Unemployment Insurance with amendments.

**List of the Principal Acts of Parliament Administered by Departments of the Government of Canada, as Compiled from Information Supplied by the Respective Departments.**—continued

Department, Year and Chapter	Name of Act	Department, Year and Chapter	Name of Act
<b>Labour</b> —concluded		<b>National Revenue</b> —concluded	
1942-43 34	Vocational Training Co-ordination as amended.	R.S.C. 1927 42	Customs with amendments.
1946 63	Reinstatement in Civil Employment.	43	Customs and Fisheries Protection (in part).
1947-48 54	Industrial Relations and Disputes Investigation.	44	Customs Tariff with amendments.
		45	Dairy Industry (in part), as amended.
<b>Mines and Technical Surveys</b> —		47	Destructive Insect and Pest (in part), as amended.
R.S.C. 1927 118	Dominion Lands Surveys.	63	Export with amendments.
1936 7	Explosives.	68	Ferries.
1948 15	Emergency Gold Mining Assistance.	69	Fertilizers (in part).
1949 17	Department of Mines and Technical Surveys.	76	Food and Drugs (in part), as amended.
		77	Meat and Canned Foods as amended.
<b>National Defence</b> —		97	Income War Tax with amendments.
R.S.C. 1927 132	Militia as amended.	137	Department of National Revenue with amendments.
133	Militia Pensions with amendments.	151	Proprietary or Patent Medicine (in part).
136	Department of National Defence with amendments.	159	Petroleum and Naphtha Inspection as amended.
1928 7	Royal Military College.	168	Quarantine (in part).
1933 21	Visiting Forces (British Commonwealth).	179	Special War Revenue (in part), with amendments.
1940 15	Royal Canadian Air Force as amended.	212	Weights and Measures (in part).
1944 23	Naval Service as amended.	1928 31	Importation of Intoxicating Liquors.
1947 47	Visiting Forces (United States of America).	1929 49	Opium and Narcotic Drug (in part), with amendments.
		1930 30	Maple Sugar Industry (in part).
<b>National Health and Welfare</b> —		1932 33	Gold Export (in part).
1944 22	Department of National Health and Welfare as amended.	1934 44	Canada Shipping (in part).
<b>National Health</b> —		52	Excise with amendments.
R.S.C. 1927 76	Food and Drugs as amended.	1935 62	Fruits, Vegetables and Honey (in part).
91	Public Works Health.	1937 40	Seeds (in part).
93	Immigration (in part), as amended.	1940 32	Excise Profits Tax with amendments.
98	Indian (in part), as amended.	1940-41 2	War Exchange Conservation with amendments.
119	Leprosy.	14	Dominion Succession Duty with amendments.
151	Proprietary or Patent Medicine.	1946 7	Explosives.
168	Quarantine.	26	Precious Metals Marking (in part).
1929 49	Opium and Narcotic Drug with amendments.	1947 16	Continuation of Transitional Measures (in part).
1934 44	Canada Shipping (Part V. Sick Mariners and Marine Hospitals) as amended.	17	Export and Import Permits as amended.
<b>Welfare</b> —		1948 52	Income Tax with amendments.
R.S.C. 1927 156	Old Age Pensions as amended.		
1939 10	War Charities as amended.	<b>Post Office</b> —	
1943 29	National Physical Fitness.	R.S.C. 1927 15	Savings Banks (in part).
1944 40	Family Allowances as amended.	161	Post Office with amendments.
<b>National Revenue</b> —		179	Special War Revenue (in part), with amendments.
R.S.C. 1927 3	Aeronautics (in part).		
5	Pest Control Products (in part).	<b>Public Archives</b> —	
6	Animal Contagious Diseases (in part).	R.S.C. 1927 8	Public Archives.
32	Copyright (in part).		

List of the Principal Acts of Parliament Administered by Departments of the Government of Canada, as Compiled from Information Supplied by the Respective Departments.—continued

Department, Year and Chapter	Name of Act	Department, Year and Chapter	Name of Act
<b>Public Works—</b>		<b>Resources and Development—</b>	
R.S.C. 1927 64	Expropriation.	concluded	
68	Ferries.	1938 49	National Housing with amend- ments.
89	Government Harbours and Piers (Section 4).	1939 33	Rainy Lake Watershed Emer- gency Control 1939.
140	Navigable Waters' Protection, Part I.	1940-41 17	Game Export with amend- ments.
166	Public Works.	1944-45 46	National Housing Act 1944, with amendments.
167	Government Works Tolls.	1945 15	Central Mortgage and Housing Corporation.
170	Railways (Section 248).	1947 59	Eastern Rocky Mountain For- est Conservation.
191	Dry Docks Subsidies.	1948 64	Northwest Territories Power Commission.
1930 47	Act Respecting Vehicular Traf- fic on Dominion Property.	1949 8	Canada Forestry.
1934 59	Public Works Construction.	18	Department of Resources and Development.
		40	Trans-Canada Highway.
<b>Resources and Development—*</b>		<b>Secretary of State—†</b>	
R.S.C. 1908 57-58†	National Battlefields at Que- bec with amendments.	R.S.C. 1927 19	Boards of Trade as amended.
R.S.C. 1927 87	Seed Grain.	32	Copyright with amendments.
88	Seed Grain Sureties.	48	Public Documents.
104	Irrigation.	164	Public Officers.
113	Dominion Lands with amend- ments.	189	Department of State.
114	Public Lands Grants (in part).	196	Canada Temperance.
115	Ordnance and Admiralty Lands (in part).	197	Ticket of Leave.
116	Railway Belt.	198	Timber Marking as amended.
118	Land Titles with amendments.	201	Trade Mark and Design as amended.
124	Manitoba Supplementary Pro- visions.	202	Trade Unions.
130	Migratory Birds Convention with amendments.	55	Reparation Payment.
142	Northwest Territories with amendments.	1929 38	Unfair Competition.
175	Reclamation.	1932 36	Companies' Creditors Arrange- ment.
180	Saskatchewan and Alberta Roads.	1933 25	Translation Bureau.
210	Dominion Water Power with amendments.	1934 33	Companies as amended.
211	Railway Belt Water with amendments.	1935 32	Patent as amended.
215	Yukon with amendments.	1938 41	Shop Cards Registration.
216	Yukon Placer Mining with amendments.	1939 22	Seals.
217	Yukon Quartz Mining with amendments.	1947 24	Trading with the Enemy (Transitional Powers).
1927 51	Respecting certain debts due the Crown.	<b>Trade and Commerce—</b>	
1928 32	Lac Seul Conservation.	R.S.C. 1927 54	Electricity and Fluid Ex- portation.
1929 62	Administration of Justice in Yukon Territory.	56	Electrical Units.
1930 3	Alberta Natural Resources with amendments.	82	Gas Inspection.
29	Manitoba Natural Resources with amendments.	200	Department of Trade and Commerce.
33	National Parks with amend- ments.	208	Inland Water Freight Rates.
37	Railway Belt and Peace River Block.	212	Weights and Measures with amendments.
41	Saskatchewan Natural Re- sources with amendments.	1928 22	Electricity Inspection as amended.
1932 35	Refunds (Natural Resources).	1930 5	Canada Grain with amend- ments.
55	Waterton Glacier International Peace Park.	1935 53	Canadian Wheat Board with amendments.
1937 11	Home Improvement Loans Guarantee.	1939 3	Department of Munitions and Supply (2nd Session).
		31	Grain Futures.
		1944-45 21	Surplus Crown Assets.

\* The Minister of the Department of Resources and Development administers the National Film Board Act, 1931, c. 20, but the Board is not a unit of that Department.

† Not included in Revised Statutes of 1927.

‡ The Secretary of State administers the Civil Service Commission Act, R.S.C. 1927, c. 22, with amend-  
ments, but the Commission is not a unit of that Department.



**List of the Principal Acts of Parliament Administered by Departments of the Government of Canada, as Compiled from Information Supplied by the Respective Departments.—concluded**

Department, Year and Chapter	Name of Act	Department, Year and Chapter	Name of Act
<b>Trade and Commerce—concluded</b> 1944-45 39	Export Credits Insurance with amendments.	<b>Transport—conc.</b> 1936 42	National Harbours Board as amended.
1946 26	Precious Metals Marking.	49	Water Carriage of Goods.
40	Canadian Commercial Corporation with amendments.	1937 22	Canadian National Railways Capital Revision.
1947 17	Export and Import Permits.	28	Department of Transport Stores with amendments.
1948 7	Emergency Exchange Conservation (in part).	43	Trans-Canada Air Lines with amendments.
	45	1938 50	Radio.
1949	National Trade Mark and True Labelling.	53	Transport with amendments.
		1939 12	Carriage by Air.
		1946 58	Mercant Seamen Compensation as amended.
<b>Transport—*</b> R.S.C. 1927	3	1947 18	Government Employees' Compensation.
	17	42	Port Alberni Harbour Commissioners.
	20	52	Canadian Maritime Commission.
	79		
	89	1948 10	New Westminster Harbour Commissioners Refunding.
	122	1949 20	Pipe Lines, Part I.
	140		
	170	<b>Veterans Affairs—†</b> R.S.C. 1927 157	Pension with amendments.†
	172	188	Soldier Settlement with amendments.
	173	1936 47	Veterans' Assistance Commission.
	174	1942 33	Veterans' Land with amendments.
	194	1944 19	Department of Veterans Affairs.
	203	49	Veterans' Insurance.
	208	51	War Service Grants with amendments.
	211	1945 35	Veterans' Rehabilitation with amendments.
	214	1946 34	Women's Royal Naval Services and the South African Military Nursing Service (Benefits).
1929 11	Canadian National Railways Refunding (Annual).	36	Allied Veterans Benefits.
	12	43	Civilian War Pensions and Allowances.
	48	52	Fire Fighters War Service Benefits.
	1931 19	64	Special Operators War Service Benefits.
	22-23	66	Supervisors War Service Benefits.
	1933 33	75	War Veterans' Allowance.†
	1934 44		
	1936 34		

\* The Canadian Broadcasting Act, 1936, c. 24, with amendments, is administered by the Minister of Transport but the CBC is not a unit of that Department.

† The Pension Act is administered by the Canadian Pension Commission and the War Veterans' Allowance Act by the War Veterans' Allowance Board.

## Section 4.—Federal and Provincial Commissions

### ROYAL COMMISSIONS\*

*NOTE.—This list is in continuance of those in previous Year Books beginning with that at pp. 1108-1110 of the 1940 edition.*

Royal Commission appointed to inquire into the claims of persons of Japanese race resident in Canada on July 18, 1947, in regard to property losses under custody of the Crown; constituted by Order in Council of July 18, 1947; Commissioner: Hon. Mr. Justice Henry Irvine Bird.

Royal Commission appointed to inquire into and report upon the revocation of naturalization or Canadian citizenship certificates; constituted by Order in Council of Sept. 11, 1947; Chairman: His Honour Judge René A. Danis; Commissioners: Aldous Aylen, K.C., Lee A. Kelley, K.C., John Forbes MacNeil, K.C., and Charles Arthur Krug.

Royal Commission appointed to inquire into the situation created by the floods in the Lower Fraser Valley, the extent of damage and the measures for relief and rehabilitation; constituted by Order in Council of June 10, 1948; Commissioners: Major-General B. M. Hoffmeister and Hon. Eric W. Hamber.

Royal Commission appointed to examine and report on the increases in the cost of living, specific price levels and the causes that have brought these about; constituted by Order in Council of July 8, 1948; Commissioners: Professor C. A. Curtis, H. C. Bois and Mrs. T. W. Sutherland.

Royal Commission appointed for the purpose of holding inquiries under Section 21 of the Canadian Citizenship Act; constituted by Order in Council of Dec. 17, 1948; Presiding Officer: His Honour Judge René A. Danis; Commissioners: Aldous Aylen, K.C., Lee A. Kelley, K.C., John Forbes MacNeil, K.C., and Robert Alexander Hoey.

Royal Commission appointed to inquire into and report upon the railway freight rates in Canada; constituted by Order in Council of Dec. 29, 1948; Chairman: Hon. W. F. A. Turgeon; Commissioners: Professor Henry Forbes Angus and Professor Harold Adams Innis.

Royal Commission on the national development in the arts, letters and sciences; constituted by Order in Council of Apr. 8, 1949; Chairman: Right Hon. Vincent Massey; Commissioners: Arthur Surveyer, Norman A. M. MacKenzie, Georges-Henri Levesque, Hilda Neatby.

### PROVINCIAL ROYAL COMMISSIONS

*NOTE.—Where Royal Commissions have not been established since the 1947 Year Book was published no reference appears below. This list is in continuance of that given at pp. 1222 and 1223 of the 1948-49 Year Book.*

**Newfoundland.**—Royal Commission to inquire into the cost of living; Chairman: Frank S. Gridale; Commissioners: Lewis Ayres and Cyril James; Nov. 29, 1949.

**Ontario.**—Royal Commission to inquire into and report upon and to make recommendations regarding the Workmen's Compensation Act upon subjects other than detail administration; Commissioner: The Honourable Wilfred Daniel Roach; Oct. 6, 1949.

**Manitoba.**—Royal Commission on Manitoba water power; constituted June 28, 1947; first Member of the Commission, Dr. Thos. H. Hogg; report published Mar. 24, 1948.

Royal Commission on hospital operating costs; constituted Oct. 28, 1947; Chairman: Hon. Ewan A. McPherson; report not yet published.

\* Commissions constituted under Part I of the Federal Inquiries Act.

**Saskatchewan.**—Royal Commission on public service vehicles rates and tolls; May 11, 1948; Commissioners: George Dickson, D. Drummond, H. R. MacKenzie, W. W. Perrie.

Royal Commission on the coal industry of Saskatchewan; May 31, 1949: Commissioners: Prof. John E. L. Graham, M.A., B. Litt. (Chairman); Robert D. Howland, Ph. D. (Econ.), and Roger C. Carter, B.A., LL.B.; report not yet published.

**Alberta.**—Royal Commission to investigate certain charges, allegations and reports, relating to the Child Welfare Branch of the Department of Public Welfare and officials thereof as contained in specified articles, editorials and newspaper reports; Commissioners: Hon. Chief Justice W. R. Howson (Chairman), His Honour Chief Judge J. W. McDonald, and His Honour Judge E. B. Feir.

Royal Commission to inquire into the taxation imposed by the Province and by municipalities, urban and rural, pursuant to any power of taxation under any statute of the Province; Commissioner: J. W. Judge, Deputy Minister of Municipal Affairs; report dated Feb. 12, 1948.

**British Columbia.**—Royal Commission to inquire into the assessment of real property and improvements for school taxation and into the incidence of school taxation, Aug. 9, 1947. Commissioners: H. Alan Maclean (Chairman); B. C. Bracewell; T. J. Clark; R. R. F. Sewell; R. C. Grant and J. A. Stewart; report dated Jan. 29, 1948 (not printed).

Royal Commission to inquire into and concerning disturbances in the Doukhobor settlements in British Columbia, Sept. 12, 1947. Commissioner: Harry J. Sullivan; report dated Jan. 10, 1948 (not printed).



# CHAPTER XXXI.—THE ANNUAL REGISTER

## CONSPECTUS

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### Section 1.—Official Appointments\*

**Governor General's Staff.**—1949. Jan. 31, Inspector Henry G. Nichols, of the Royal Canadian Mounted Police, Ottawa, Ont.: to be Honorary Aide-de-Camp to His Excellency the Governor General, *vice* Superintendent T. R. Michelson, resigned, effective Jan. 11, 1949. July 7, Commodore John Crispo Inglis Edwards, C.B.E., R.C.N.: to be Honorary Aide-de-Camp to His Excellency the Governor General, effective Aug. 16, 1949.

**Lieutenant-Governors.**—1949. Apr. 1, Hon. Sir Albert Joseph Walsh, K.C.: to be Lieutenant-Governor of the Province of Newfoundland. Aug. 17, Hon. Sir Leonard Cecil Outerbridge, C.B.E., D.S.O., to be Lieutenant-Governor of the Province of Newfoundland, *vice* Hon. Sir Albert Joseph Walsh, K.C., resigned, effective Sept. 5, 1949. 1950. Feb. 1, John James Bowlen: to be Lieutenant-Governor of the Province of Alberta, *vice* Hon. J. C. Bowen, resigned, effective Feb. 1, 1950.

**Privy Council.**—A list of the Members of the King's Privy Council for Canada, according to seniority, at Sept. 15, 1949, is given at p. 95 of this volume. From that date to Feb. 15, 1950, there was one appointment to the King's Privy Council for Canada: Jan. 18, 1950, Hon. Walter E. Harris. On Jan. 19, 1949, Norman Alexander Robertson was appointed Clerk of the Privy Council and Secretary to the Cabinet, effective during the month of March, 1949.

**Parliamentary Assistants.**—Parliamentary Assistants appointed to Sept. 15, 1949, are indicated by footnotes to Table 9, pp. 100-105. From that date to Feb. 15, 1950, there was one Parliamentary Assistant appointed: Feb. 1, 1950, George Prudham, Parliamentary Assistant to the Minister of Resources and Development.

**Senate.**—A list of the Members of the Senate, at Sept. 15, 1949, is given at pp. 97-98 of this volume. From that date to Feb. 15, 1950, one Senator was appointed: Jan. 25, 1950, Vincent P. Burke, C.B.E., for Newfoundland. On Aug. 3, 1949, Hon. Elie Beaugregand, a Member of the Senate and Senator for the Division of Rougemont in the Province of Quebec, was appointed Speaker of the Senate.

**House of Commons.**—Members of the House of Commons elected at by-elections held between the general election of June 27, 1949, and Feb. 15, 1950, are given in Appendix II, p. 1216 of this volume. On Aug. 10, 1949, Edward Russell Hopkins, Ottawa, Ont., was appointed Clerk Assistant of the House of Commons.

**Diplomatic Appointments.**†—The personnel of Canadian diplomatic representation abroad and heads of Commonwealth and foreign Missions in Canada at July 21, 1949, are listed in Chapter III, pp. 139-145. From that date to Feb. 15,

\* Extracts from the *Canada Gazette* except for Diplomatic Appointments.

† Prepared by the Department of External Affairs.

1950, the following Canadian appointments to other countries have been made: **1949.** Aug. 11, E. J. Garland (Minister to Norway) as Minister to Iceland. Sept. 22, J. D. Kearney as Ambassador to Argentina. Sept. 24, T. A. Stone (Minister to Sweden) as Minister to Finland. Oct. 20, Major-General the Hon. L. R. LaFlèche, D.S.O., as High Commissioner in Australia. Nov. 23, G. L. Magann as Ambassador to Greece. Dec. 12, W. F. Chipman as High Commissioner in India. Dec. 15, Lieutenant-General Maurice Pope, C.B., M.C. (Head of Mission at Berlin, Germany), as Head of Mission at Bonn, Germany. **1950.** Jan. 20, D. M. Johnson as High Commissioner in Pakistan.

From July 21, 1949, to Feb. 15, 1950, the following representatives of other countries have assumed duties in Canada: **1949.** Aug. 14, S. K. Kirpalani, High Commissioner for India to Canada. Sept. 6, A. A. Roberts, High Commissioner for the Union of South Africa to Canada. Sept. 25, Hubert Guérin, French Ambassador to Canada. **1950.** Feb. 7, Dr. Agustin Nores Martinez, Ambassador for Argentina.

### Judicial Appointments

*Higher Courts.*—**1949.** Jan. 19, William Mitchell: to be a Puisne Judge of the Superior Court for the District of St. Francis in the Province of Quebec. Apr. 1, Hon. Sir Edward Emerson: to be Chief Justice of the Supreme Court of Newfoundland. Hon. Henry Anderson Winter: to be a Judge of the Supreme Court of Newfoundland. Hon. Sir Brian Dunfield: to be a Judge of the Supreme Court of Newfoundland. May 4, C. W. Reid Bowlby, K.C.: to be a Judge of the Supreme Court of Ontario and a Member of the Court of Appeal for Ontario and ex officio a Member of the High Court of Justice for Ontario. May 16, Hon. Sir Brian Dunfield, Judge of the Supreme Court of Newfoundland: to be a District Judge in Admiralty of the Exchequer Court of Canada in and for the Admiralty District of Newfoundland. Hon. Henry Anderson Winter, Judge of the Supreme Court of Newfoundland: to be the Registrar for the Admiralty District of Newfoundland. May 27, Rt. Hon. James Lorimer Ilsley, P.C., K.C.: to be a Judge of the Supreme Court of Nova Scotia and a Judge of the Court for Divorce and Matrimonial Causes of the Province of Nova Scotia. July 6, Hon. Donald Alexander McNiven, a Judge of the Court of King's Bench for Saskatchewan: to be a Judge of the Court of Appeal for Saskatchewan and ex officio a Judge of the Court of King's Bench for Saskatchewan. Clifford S. Davis, K.C.: to be a Judge of the Court of King's Bench for Saskatchewan, effective on and after Sept. 1, 1949. Aug. 10, John J. Kelly, K.C.: to be a Judge of the Court of King's Bench for Manitoba. Aug. 17, Hon. Sir Albert Joseph Walsh, K.C.: to be Chief Justice of the Supreme Court of Newfoundland, *vice* Hon. Sir Edward Emerson, deceased, effective Sept. 5, 1949. Sept. 13, Hon. Sir Albert Joseph Walsh, Chief Justice of the Supreme Court of Newfoundland: to be District Judge in Admiralty of the Exchequer Court of Canada in and for the Admiralty District of the Province of Newfoundland. Nov. 1, Hon. Lauchlin D. Currie, K.C.: to be a Judge of the Supreme Court of Nova Scotia and a Judge of the Court for Divorce and Matrimonial Causes of the Province of Nova Scotia. Dec. 13, Hon. Arthur Ives Smith, a Judge of the Superior Court of Quebec: to be a Deputy Judge of the Admiralty District of Quebec. Dec. 22, John R. Cartwright: to be a Puisne Judge of the Supreme Court of Canada. Hon. Joseph Honoré Gerald Fauteux, a Puisne Judge of the Superior Court for the District of Montreal, Que.: to be a Puisne Judge of the Superior Court of Canada. **1950.** Jan. 7,

R. I. Ferguson, K.C., and Wishart Flett Spence, K.C.: to be Judges of the Supreme Court of Ontario and Members of the High Court of Justice for Ontario and ex officio Members of the Court of Appeal for Ontario. Jan. 18, Hon. John Keiller Mackay, a Judge of the Supreme Court of Ontario, and a Member of the High Court of Justice for Ontario: to be a Member of the Court of Appeal for Ontario and ex officio a Member of the High Court of Justice for Ontario. Hon. Colin William George Gibson, M.C., V.D., K.C.: to be a Judge of the Supreme Court of Ontario and a Member of the Court of Appeal for Ontario and ex officio a Member of the High Court of Justice for Ontario. J. M. King: to be a Judge of the Supreme Court of Ontario and a Member of the High Court of Justice for Ontario, and ex officio a Member of the Court of Appeal for Ontario. Hon. Antonin Galipeault, a Puisne Judge of the Court of King's Bench for the Province of Quebec: to be Chief Justice of the Court of King's Bench in and for the Province of Quebec. G. Miller Hyde, K.C.: to be a Puisne Judge of the Court of King's Bench in and for the Province of Quebec. Edouard Tellier, K.C.: to be a Puisne Judge of the Superior Court for the District of Montreal in the Province of Quebec. Jan. 25, Hon. George Bligh O'Connor, a Judge of the Appellate Division of the Supreme Court of Alberta: to be Chief Justice of the Supreme Court of Alberta, with the style and title of Chief Justice of Alberta and ex officio a Judge of the Trial Division of the said Court. Hon. Clinton James Ford, a Judge of the Trial Division of the Supreme Court of Alberta: to be a Judge of the Appellate Division of the said Court and ex officio a Judge of the Trial Division of the said Court. William Gordon Egbert, K.C.: to be a Justice of the Trial Division of the Supreme Court of Alberta and ex officio a Judge of the Appellate Division of the said Court. Rt. Hon. James Lorimer Ilsley, a Judge of the Supreme Court of Nova Scotia: to be Chief Justice of the Supreme Court of Nova Scotia. Feb. 8, Vincent C. Macdonald, K.C.: to be a Judge of the Supreme Court of Nova Scotia and a Judge of the Court for Divorce and Matrimonial Causes of the Province of Nova Scotia. His Honour Vincent Joseph Pottier, a Judge of the County Court in the Province of Nova Scotia: to be District Judge in Admiralty of the Exchequer Court of Canada in and for the Admiralty District of the Province of Nova Scotia. Feb. 14, Harry Batshaw, K.C.: to be a Puisne Judge of the Superior Court for the District of Montreal in the Province of Quebec.

*County and District Courts.—1949.* Jan. 21, His Honour William Frederick Schwenger, Junior Judge of the County Court for the County of Wentworth, Ont.: to be Judge of the County Court for the said County of Wentworth, Ont., and also a Local Judge of the High Court of Justice for Ontario. Theodore Leslie McCombs, K.C., Hamilton, Ont.: to be Junior Judge of the County Court for the County of Wentworth in the said Province of Ontario and also a Local Judge of the High Court of Justice for Ontario. Feb. 9, His Honour Robert Erie Nay, Judge of the District Court of the Judicial District of Kerrobert in the Province of Saskatchewan: to be Judge of the District Court of the Judicial District of Battleford in the said Province. Hector MacKay, K.C., Melville, Sask.: to be Judge of the District Court of the Judicial District of Kerrobert in the said Province. His Honour John Murton Hanbidge, Judge of the District Court of the Judicial District of Humboldt, Sask.: to be Judge of the District Court of the Judicial District of Prince Albert in the said Province. W. L. Clink, K.C., Battleford, Sask.: to be Judge of the District Court of the Judicial District of Estevan in the said Province. Michael Stechishin, K.C., Yorkton, Sask.: to be Judge of the District Court of the Judicial District of Wynyard in the said Province. Robert Forsyth, K.C., Ottawa, Ont.: to



be Judge of the County Court for the County of York in the said Province, effective Mar. 1, 1949. Thomas J. Darby, K.C., Welland, Ont.: to be Judge of the County Court for the County of Lincoln in the said Province, and also a Local Judge of the High Court of Justice for Ontario. Mar. 3, Andrew Harold Gibson, Stipendiary Magistrate, at Yellowknife, N.W.T.: to be Judge of the Juvenile Court for the Yellowknife Administrative District. Frederick Fraser, Stipendiary Magistrate at Fort Smith, N.W.T.: to be Judge of the Juvenile Court for Fort Smith and within a radius of ten miles therefrom, at Fort Resolution and within a radius of ten miles therefrom, and at Taltson River and within a radius of ten miles therefrom. Douglas James Martin, Stipendiary Magistrate, at Hay River, N.W.T.: to be Judge of the Juvenile Court at Hay River and within a radius of ten miles therefrom. Joseph Robert Emile Bouchard, Stipendiary Magistrate, at Aklavik, N.W.T.: to be Judge of the Juvenile Court at Aklavik and within a radius of ten miles therefrom, at Arctic Red River and within a radius of ten miles therefrom, and at Fort Norman, N.W.T., and within a radius of ten miles therefrom. June 16, Wilson N. Robinson, K.C., Oakville, Ont.: to be Judge of the County Court for the County of Halton in the said Province, and also a Local Judge of the High Court of Justice for Ontario. July 6, His Honour Ian MacRae, Junior Judge of the County Court for the County of Middlesex in the Province of Ontario: to be Judge of the County Court for the County of Middlesex in the said Province, and also a Local Judge of the High Court of Justice for Ontario. J. W. Thompson, K.C., Maple Creek, Sask.: to be Judge of the District Court of the Judicial District of Weyburn, in the said Province, effective on and after Sept. 1, 1949. July 26, Joseph Robert Emile Bouchard, Stipendiary Magistrate at Aklavik, N.W.T.: to be Judge of the Juvenile Court for Fort McPherson and within a radius of ten miles therefrom. Aug. 31, Cecil B. Philp, K.C., Winnipeg, Man.: to be a Judge of the County Courts of the Eastern Judicial District in the said Province. Sept. 13, His Honour Stanley Chandos Staveley Kerr, a Judge of the District Court of Northern Alberta: to be Chief Judge of the District Court of the District of Northern Alberta in the said Province, and also a Local Judge of the Supreme Court of Alberta. C. Edouard Gariépy, K.C., Edmonton, Alta.: to be a Judge of the District Court of the District of Northern Alberta in the said Province, and also a Local Judge of the Supreme Court of Alberta. Nov. 4, His Honour Cecil Bray Philp, a Judge of the County Courts of the Eastern Judicial District in the Province of Manitoba: to be the Senior Judge of the County Courts of the said Judicial District, effective Dec. 1, 1949. James I. Morkin, K.C., Winnipeg, Man.: to be a Judge of the County Courts of the Eastern Judicial District in the said Province, effective Dec. 1, 1949. Clarence G. Keith, K.C., Winnipeg, Man.: to be a Judge of the County Courts of the Eastern Judicial District in the said Province, effective Dec. 1, 1949. Dec. 22, J. S. Desroches, Summerside, P.E.I.: to be Judge of the County Court for the County of Kings in the said Province. His Honour Charles St. Clair Trainor, Judge of the County Court for the County of Kings, P.E.I.: to be Judge of the County Court for the County of Queens in the said Province. 1950. Jan. 20, Laurence Hudson Phinney, Stipendiary Magistrate for Yukon Territory: to be Judge of the Juvenile Court for the Mining District of Whitehorse, Yukon, *vice* J. Aubrey Simmons, M.P. Wilfred George Brown, Stipendiary Magistrate for the Northwest Territories: to be Judge of the Juvenile Court for Fort Smith, N.W.T., and within a radius of ten miles therefrom; at Fort Resolution, N.W.T., and within a radius of ten miles therefrom; and at Taltson River, N.W.T., and within a radius of ten miles therefrom. Jan. 25, Alexandre Bernier, K.C., Winnipeg, Man.: to be Judge of the County Courts of the Central Division of the Eastern Judicial District in

the said Province. Reginald D. Keirstead, Saint John, N.B.: to be Judge of the County Court for the County of Saint John in the said Province. Feb. 14, Gerald F. Smith, Napanee, Ont.: to be Judge of the County Court for the County of Lennox and Addington in the Province of Ontario, and also a Local Judge of the High Court of Justice for Ontario.

#### **Appointments to Law Revision Commissions, Committees, etc.**

*Criminal Code Revision Commission.*—1949. Feb. 3, Hon. Chief Justice William M. Martin of Saskatchewan, Hon. Justice Gerald Fauteux, Montreal, Que., and the Deputy Minister of Justice: to be Commissioners. Arthur Greame Slaght, K.C., Toronto, Ont.: to be consulting counsel. Harry J. Wilson, K.C., Deputy Attorney General of Alberta, Fernand Choquette, K.C., Quebec, Que., John J. Robinette, K.C., Toronto, Ont., Joseph Sedgewick, K.C., Toronto, Ont., and Robert Forsyth, K.C., of the Department of Justice: to be Members of the Committee to be known as the Criminal Code Revision Committee, effective Jan. 31, 1949. Feb. 25, William C. Dunlop, K.C., Halifax, N.S.: to be a Member of the Criminal Code Revision Committee. May 4, Harry Pyne Carter, K.C., Director, Public Prosecutions, St. John's, Newfoundland: to be a Member of the Criminal Code Revision Committee. Aug. 10, Thomas D. MacDonald: to be a Member of the Criminal Code Revision Committee.

*Statute Revision Commission.*—1949. June 16, Paul Fontaine, K.C., Assistant Deputy Minister of Justice: to be a temporary Member, *vice* David W. Mundell. July 29, Rt. Hon. Thibaudeau Rinfret, Chief Justice of Canada; F. P. Varcoe, K.C., Deputy Minister of Justice; W. R. Jackett, K.C., Assistant Deputy Minister of Justice; E. A. Driedger, K.C., Parliamentary Counsel, Department of Justice; Charles Stein, K.C., Under Secretary of State: to be Members. Rt. Hon. Thibaudeau Rinfret to be Chairman of the said Commission.

#### **Government Appointments to Miscellaneous Boards, Commissions, etc.**

*Advisory Board on Wildlife Protection.*—1949. Feb. 4, Dr. Joseph Georges Bouchard, Assistant Deputy Minister of Agriculture: to be Member and Chairman, *vice* Dr. Marius Barbeau, retired. Mar. 17, George Pearson Holland, Chief of the Systematics Unit in the Division of Entomology, Science Service, Department of Agriculture: to be a Member, *vice* Dr. K. W. Neatby, resigned.

*Advisory Committee under the Maritime Marshland Rehabilitation Act.*—1949. July 6, J. S. Parker, Amherst, N.S.; W. W. Baird, Nappan, N.S.; Smith Hilton, Fredericton, N.B.; Angus Banting, Truro, N.S.; Walter Lusby, Amherst, N.S.; Aubrey Trenholm, Amherst, N.S.; J. Arnold Roberts, Fredericton, N.B.; James F. Anderson, Middle Sackville, N.B.: to be Members of an Advisory Committee under the Maritime Marshland Rehabilitation Act. J. S. Parker: to be Chairman of the said Commission.

*Advisory Council of the Export Credits Insurance Corporation.*—1949. Raymond Garneau, Quebec, Que.: to be a Member, *vice* J. A. Amyot, resigned.

*Air Transport Board.*—1949. Jan. 19, John Russel Baldwin, Ottawa, Ont.: to be a Member and Chairman for a term of ten years commencing Jan. 1, 1949, *vice* R. A. C. Henry, resigned.

*Appeal Committee for the Province of British Columbia.*—1949. Jan. 18, John Alan Baker, Miss Sara Spencer and Mrs. J. L. Gates, all of Victoria, B.C.: to be Members, for a period of two years from Feb. 1, 1949; J. Alan Baker to be Chairman.

Mar. 31, J. K. Balcombe, Victoria, B.C.: to be Secretary. Oct. 11, Clifford Merrill Keillor, M.D.: to be again an *ad hoc* Member for a further period of one year from Dec. 12, 1949. Nov. 16, John Fabian Bates, Sydney, N.S., to be an *ad hoc* Member for a period of one year from Nov. 28, 1949. Dec. 8, Cdr. Norman Loris Pickersgill, V.R.D.: to be again an *ad hoc* Member for a further period of one year from Feb. 1, 1950. Wing Commander John Murray Forman, D.F.C., to be again an *ad hoc* Member for a further period of one year from Feb. 1, 1950.

*Army Benevolent Fund Board.*—1949. Oct. 27, Lieutenant General E. W. Sansom, C.B., D.S.O., Fredericton, N.B., and Major A. J. Wickens, K.C., Moose Jaw, Sask.: to be again Members for a further period of four years, effective Dec. 3, 1949.

*Assay Commissioners.*—1949. Apr. 26, Dr. E. L. Tollefson of the Division of Chemistry, National Research Council, W. E. K. Middleton of the Division of Physics, National Research Council and J. A. Fournier of the Mineral Dressing and Metallurgy Division, Bureau of Mines: to be Assay Commissioners to test coins for the Royal Canadian Mint. May 2, R. A. Rogers of the Mineral Dressing and Metallurgical Division, Bureau of Mines: to be an alternate to J. A. Fournier to test coins for the Royal Canadian Mint.

*Atomic Energy Control Board.*—1949. Aug. 17, George C. Bateman, formerly Deputy Canadian Member of the Combined Production and Resources Board and William J. Bennett, President and Managing Director of Eldorado Mining and Refining (1944), Limited: to be again Members for a further term expiring Mar. 31, 1953.

*Bank of Canada.*—1949. Nov. 28, James E. Coyne: to be Deputy Governor of the Bank of Canada for a period of seven years effective on and from Jan. 1, 1950. Alfred Pickard, Charlottetown, P.E.I.: to be a Director, *vice* J. L. Holman, deceased, for the remainder of the term, up to and including the last day of February, 1951. Hazen A. Russell, St. John's, Nfld.: to be a Director for a term expiring Feb. 28, 1951.

*Board of Grain Commissioners for Canada.*—1950. Jan. 7, Roy Wilfred Milner, Calgary, Alta.: to be a Commissioner.

*Board of Review.*—1949. Sept. 23, G. J. Matte, Associate Director, Prairie Farm Rehabilitation Act, Department of Agriculture: to be a Member of the Board of Review established under the Prairie Farm Assistance Act, *vice* A. L. Stevenson.

*Board of Transport Commissioners.*—1949. Apr. 28, William John Patterson, Regina, Sask.: to be a Member of the Board of Transport Commissioners for Canada. Sept. 20, F. M. MacPherson: to be again a Member for a further term from Sept. 21, 1949.

*Canadian Broadcasting Corporation.*—1949. Nov. 4, René Morin, Montreal, Que.: to be again a Governor for a further term of three years from Nov. 1, 1949. F. J. Crawford, Toronto, Ont.: to be again a Governor for a further term of three years from Nov. 2, 1949. Nov. 17, James Alexander Corry, Kingston, Ont.: to be a Governor *vice* Bernard Keble Sandwell, Mr. Corry to hold office for the balance of term, *viz.*, to Mar. 24, 1950.



*Canadian Commercial Corporation.*—1949. Mar. 1, Sydney David Pierce, Associate Deputy Minister, Department of Trade and Commerce: to be Director, *vice* David Sim, resigned, effective Feb. 15, 1949. Apr. 7, Charles Mills Drury, Deputy Minister, Department of National Defence: to be Director, *vice* Wilfrid Gordon Mills, resigned, effective Mar. 28, 1949.

*Canadian Farm Loan Board.*—1949. Feb. 25, John C. Murray: to be a Member for a period of one year and Commissioner for such period. Aug. 3, Hervé Edgar Brunelle, Cap de la Madeleine, Que.: to be a Member for a term of five years from Aug. 3, 1949. Aug. 10, Duncan Ross, Martintown, Ont.: to be again a Member for a further term of one year from Aug. 11, 1949.

*Canadian National Railway Company.*—1949. Sept. 30, Ralph B. Brennan, Saint John, N.B.: to be again a Director for a further term of three years commencing Oct. 1, 1949. Oct. 11, Donald Gordon: to be President and a Member of the Board of Directors and Chairman thereof, effective Jan. 1, 1950. Oct. 12, William Parker, Winnipeg, Man.: to be a Director for a term of three years commencing Nov. 1, 1949.

*Canadian Pension Commission.*—1949. Jan. 12, Cmdr. Norman Loris Pickersgill, V.D.: to be an *ad hoc* Member for a further term of one year from Feb. 1, 1949. Wing Cmdr. John Murray Forman, D.F.C.: to be an *ad hoc* Member for a further term of one year from Feb. 1, 1949. May 4, Harry Bray: to be again a Member for a further period of four years from Sept. 1, 1949. July 6, Roderick John Gordon, M.D., D.P.H., F.A.C.P.: to be again an *ad hoc* Member for a further term of one year from Sept. 1, 1949.

*Canadian Wheat Board.*—1949. Feb. 15, D. J. Walker, President, Purity Mills, Limited, Toronto, Ont.: to be a Member of the Advisory Committee, *vice* D. A. Campbell, resigned, effective Feb. 10, 1949. Feb. 22, J. C. A. Nijdam, President, Continental Grain Company Canada, Limited, Winnipeg, Man.: to be a Member of the Advisory Committee, *vice* C. Gordon Smith, resigned, effective Feb. 15, 1949.

*Copyright Appeal Board.*—1949. May 9, Charles Stein, K.C., Under Secretary of State and Deputy Registrar General of Canada: to be a Member, *vice* E. H. Coleman, resigned.

*Defence Research Board.*—1949. Mar. 17, Dr. R. F. Farquharson, M.B.E., Toronto, Ont., and H. Greville Smith, C.B.E., Montreal, Que.: to be Members for a period of three years from Apr. 1, 1949. Dr. Paul Edouard Gagnon, Quebec, Que., and Dr. Otto Maass, C.B.E., Montreal, Que.: to be Members for a period of two years from Apr. 1, 1949.

*Dominion Council of Health.*—1949. Sept. 20, Dr. Robert D. Defries, Toronto, Ont.: to be again a Member for a further period of three years, effective from July 1, 1949, and C. E. Fillmore, Clandeboye, Man.: to be again a Member for a further period of three years, effective from Sept. 1, 1949. 1950. Feb. 3, Madame Louis Berger of Quebec: to be a Member for a period of three years, effective Oct. 1, 1949.

*Federal District Commission.*—1949. Mar. 18, Dr. R. E. Valin, Ottawa, Ont.: to be a Member, *vice* Dr. Rodolphe Chevrier, deceased. Aug. 31, J. B. Spencer, J. A. Ewart, D. K. MacTavish and A. J. Major: to be again Members.

*Grain Commission.*—1949. Feb. 25, Allan G. McLean, Yorkton, Sask.: to be Assistant Grain Commissioner for the Province of Saskatchewan, *vice* John Vallance, effective Mar. 1, 1949.

*Hamilton Harbour Commissioners.*—1949. Jan. 5, John L. Stewart, Hamilton West, Ont.: to be a Commissioner, effective Dec. 27, 1948, *vice* Theodore McCombs, K.C., resigned. Sept. 20, Ross Gerald Lewis Harstone: to be a Member, effective Sept. 16, 1949, *vice* Louis C. Flaherty, resigned.

*Historic Sites and Monuments Board of Canada.*—1949. Jan. 25, J. Clarence Webster, C.M.G., M.D., D.Sc., LL.D., F.R.S.C., Shediac, N.B.; Prof. Fred Landon, M.A., F.R.S.C., London, Ont.; Prof. D. C. Harvey, M.A., LL.D., F.R.S.C., Halifax, N.S.; Hon. E. Fabre Surveyer, K.C., LL.M., B.C.L., LL.D., F.R.S.C., Montreal, Que.; J. A. Gregory, North Battleford, Sask.; Rev. A. d'Eschambault, D.S.T., D.J.C., Genthon, Man.; Prof. Morden H. Long, M.A., Edmonton, Alta.; Prof. Walter N. Sage, M.A., Ph.D., F.R.S.C., F.R. Hist. S., Vancouver, B.C.; Hon. Thane A. Campbell, M.A., K.C., Charlottetown, P.E.I.; William Kaye Lamb, M.A., Ph.D., Ottawa, Ont.; and W. D. Cromarty, National Parks Service, Ottawa, Ont.: to be Members for a period of five years commencing Jan. 1, 1949, J. Clarence Webster to be Chairman.

*Income Tax Appeal Board.*—1949. Dec. 21, Hon. Roy Graham, a Judge of the Court of King's Bench, Province of Saskatchewan: to be again Chairman for a period of one year, effective Jan. 1, 1950.

*Interprovincial Board under the Old Age Pensions Act.*—1949. Oct. 27, to be Members: Hon. H. L. Pottle, Minister of Public Welfare, and R. R. Roberts, Chairman, Old Age Pensions Board, Newfoundland; J. E. Gibben, Commissioner of the Yukon Territory, and W. A. Wardrop, Territorial Secretary of the Yukon Territory, Yukon.

*International Fisheries Commission (Halibut).*—1949. Sept. 23, George R. Clark, Director of Pacific and Inland Fisheries, Department of Fisheries, Ottawa: to be one of the Canadian Members, *vice* Stewart Bates, effective from Sept. 19, 1949. 1950. Jan. 25, Dr. André Simard of Quebec: to be a Commissioner, *vice* Dr. N. A. Dussault, deceased.

*International Joint Commission.*—1949. Dec. 21, General the Honourable Andrew George Latta McNaughton, C.H., C.B., C.M.G., D.S.O.: to be Commissioner.

*National Battlefields Commission.*—1949. Jan. 19, James Y. Murdoch, K.C., Toronto, Ont., and William Q. Stobo, Quebec, Que.: to be Members, *vice* George M. Wrong and Col. William Wood, both deceased.

*National Council on Physical Fitness.*—1949. Apr. 26, Ewart Campbell Cross, Acting Director of the Community Programs of the Provincial Department of Education of Ontario: to be a Member, *vice* Charles E. Hendry, resigned, from Apr. 1, 1949, to Aug. 31, 1950. Sept. 1, Ernest Lee, Vancouver, B.C.: to be again a Member for a further period of three years, effective from Oct. 1, 1949, to Sept. 30, 1952, Mr. Lee to be Chairman of the said Board and to bear the title of "National Director of Physical Fitness". Dec. 29, M. H. Brewer, N.B.; H. M. Devenney, Man.; and Dr. L. W. Shaw, P.E.I.: to be again Members for a further period of three years, effective Jan. 1, 1950, and terminating Dec. 31, 1952.

*National Film Board.*—1949. Feb. 22, James A. Cunningham, New Glasgow, N.S.: to be a Member, *vice* Charles G. Cowan, resigned. Sept. 13, Dr. J. G. Bouchard, Ottawa, Ont., and Donald Cameron, Edmonton, Alta.: to be again Members for a further period of three years from Aug. 31, 1949. Dec. 16, William Arthur Irwin, Toronto, Ont.: to be Government Film Commissioner.

*National Gallery of Canada.*—1950. Jan. 7, Lawren Harris, Vancouver, B.C.: to be a Member of the Board of Trustees.

*National Research Council.*—1949. Apr. 12, Dr. H. P. Armes, Dean of the University, University of Manitoba, Winnipeg, Man.; Dr. A. R. Gordon, Head of the Department of Chemistry, University of Toronto, Ont.; Dr. G. H. Henderson, Professor of Physics, Dalhousie University, Halifax, N.S.; Dr. W. P. Thompson, Dean of the College of Arts, University of Saskatchewan, Saskatoon, Sask.: to be again Members for a further term of three years from Apr. 1, 1949, to Mar. 31, 1952. May 4, Brigadier F. C. Wallace: to be a Member for a term of three years expiring Mar. 31, 1952. Aug. 3, J. H. L. Johnstone, M.B.E., O.B.E., M.Sc., Ph.D., Dean of the Faculty of Arts and Science, Dalhousie University, Halifax, N.S.: to be a Member for the uncompleted term of the late Dr. G. H. Henderson, expiring Mar. 31, 1952.

*North Fraser Harbour Commissioners.*—1949. Oct. 4, W. P. Philps, New Westminster, B.C.: to be Commissioner, *vice* George A. Grant, resigned, effective Oct. 1, 1949.

*Port Warden for the Harbour of Halifax, N.S.*—1949. June 2, Capt. Ralph Wilkinson Davidson: to be Port Warden at and for the harbour of Halifax, N.S., *vice* Capt. Wilbert Alvin Inness, resigned.

*Public Administrator for the Yukon Territory.*—1949. Aug. 17, George C. Van Roggen, Whitehorse, Yukon Territory: to be Public Administrator for the Yukon Territory, *vice* Charles Becker, K.C., effective Aug. 31, 1949.

*Tariff Board.*—1949. Mar. 28, François Joseph Leduc, Montreal, Que.: to be a Member and Vice-Chairman. William Wallace Buchanan, East Selkirk, Man.: to be a Member.

*Toronto Harbour Commissioners.*—1949. Nov. 29, Alex. O. Dawson: to be a Commissioner for a term of three years commencing Nov. 15, 1949, *vice* Luther F. Winchell, resigned.

*Trans-Canada Air Lines (Atlantic) Limited.*—1950. Jan. 13, R.A.C. Henry, Montreal, Que.: to be a Director, *vice* George Herring, resigned.

*Unemployment Insurance Advisory Committee.*—1949. Dec. 6, Jean Marchand to be a Member of the Unemployment Insurance Advisory Committee, under the authority of the Unemployment Insurance Act, 1940, *vice* Romeo Vallee, resigned.

*Vocational Training Advisory Council.*—1949. Mar. 22, T. D. Anderson, Acting General Secretary of the Canadian Legion: to be a Member, representing Canadian veterans, for the period ending Dec. 1, 1950, *vice* J. C. G. Herwig, deceased.

*Miscellaneous.*—1949. Mar. 8, Jean Paul Malo, Joliette, Que.: to be a Commissioner to investigate such charges of political partisanship against Government employees in the Province of Quebec as may be referred to him. Mar. 15, Norman Alexander Robertson, Clerk of the King's Privy Council for Canada and Secretary to the Cabinet: to be a Commissioner, *per dedimus potestatem*, to tender and admin-



ister the Oath of Allegiance, and the Oath of Office, and such other Oaths as may from time to time be prescribed by law. Apr. 1, Hon. Sir Edward Emerson, Chief Justice of the Supreme Court of Newfoundland, Hon. Sir Brian Dunfield and Hon. Henry Anderson Winter, Judges of the Supreme Court of Newfoundland: to be Commissioners, *per dedimus potestatem*, to tender and administer the Oath of Allegiance and such other Oath or Oaths within the said Province as may from time to time be prescribed by any law or statute. Sept. 27, Roger Bisson, K.C., Three Rivers, Que: to be a Commissioner to investigate charges of political partisanship against Joseph Paradis, a Fireman-Labourer, employed by the Department of Public Works on the maintenance staff of the Public Building at Three Rivers, Que., pursuant to Part I of the Inquiries Act, and to report the result of such inquiries.

## Section 2.—Federal Legislation

### Legislation of the Fifth Session of the Twentieth Parliament, Jan. 26, 1949, to Apr. 30, 1949

NOTE.—This classified list of Federal Legislation has been compiled from the Statutes. Naturally, in summarizing material of this kind it is not always easy to convey the full implications of the legislation. The reader who is interested in any specific Act is, therefore, referred to the Statutes. Adequate references are given in this summary.

Chapter and Date of Assent	Synopsis
13 George VI.	
<b>Agriculture—</b>	
8 Mar. 30	<i>An Act to Amend The Agricultural Products Act.</i> The amendment provides for continuance of the provisions of The Agricultural Products Act until Mar. 31, 1950.
10 Mar. 30	<i>An Act to Amend The Cheese and Cheese Factory Improvement Act.</i> The amendment provides penalties for violation of the regulations governing grants on graded cheese as set out in The Cheese and Cheese Factory Act.
16 Apr. 30	<i>The Agricultural Products Marketing Act.</i> The Act provides for the granting of authority to Provincial Boards to exercise powers of regulation in relation to the marketing of agricultural products inside and outside the province.
<b>Communications—</b>	
13 Mar. 30	<i>An Act to Amend The Mail Contracts Supplemental Payments Act.</i> This amendment authorizes the incorporation of supplementary payments in the renewal of mail contracts.
<b>Constitution and Government—</b>	
1 Feb. 18	<i>An Act to Approve the Terms of Union of Newfoundland with Canada.*</i> This Act authorizes (as stated in the Schedule attached to the Act) the Terms of Union whereby Newfoundland forms part of Canada and becomes a province thereof.
<b>Finance—</b>	
2 Mar. 25	<i>An Act to Amend The Canadian Commercial Corporation Act.</i> This amendment authorizes the Minister of Finance to advance, out of unappropriated moneys in the Consolidated Revenue Fund, loans to the Corporation not to exceed \$10,000,000, and authorizes the Corporation to retain all moneys received by it subject to the repayment of the loans. The Corporation is also authorized to recover operation expenses.
4 Mar. 25	<i>An Act to Amend The Foreign Exchange Control Act.</i> By this amendment the Foreign Exchange Control Act is continued in force until 60 days after the commencement of the First Session of Parliament, 1951.
7 Mar. 25	<i>The Appropriation Act, No. 1, 1949.</i> This legislation provides for payment of moneys out of the Consolidated Revenue Fund for the Public Service according to attached Schedules A, B and C of the Act and provides for the raising of moneys for the redemption of loans or obligations maturing Mar. 31, 1950.

\* Proclaimed Apr. 1, 1949. See *Canada Gazette*, Apr. 23, 1949, pp. 1495-1504.

**Legislation of the Fifth Session of the Twentieth Parliament,  
Jan. 26, 1949, to Apr. 30, 1949—concluded**

Chapter and Date of Assent	Synopsis
<b>Finance—concl.</b>	
14 Apr. 1	<i>The Appropriation Act, No. 3, 1949.</i> This legislation provides certain sums of money for the Public Service as set forth in the Supplementary Estimates (Newfoundland), for the financial year ended Mar. 31, 1950.
15 Apr. 7	<i>The Appropriation Act, No. 2, 1949.</i> This legislation provides certain supplementary funds for the Public Service for the financial year ended Mar. 31, 1949, according to Schedule attached to the Act.
21 Apr. 30	<i>The Appropriation Act, No. 4, 1949.</i> The Act provides certain sums of money for the Public Service for the financial year ended Mar. 31, 1950, based on the Main Estimates as contained in Schedules A and B and C, and Supplementary Estimates (Newfoundland) in Schedule D as appended to the Act.
<b>Justice—</b>	
6 Mar. 25	<i>The Statute Law Amendment (Newfoundland) Act.</i> This legislation interprets Statute Law as applicable to Newfoundland.
18 Apr. 30	<i>An Act to Amend The Judges Act, 1946.</i> This amendment provides for salaries for an added number of puisne judges of the Superior Court of Quebec.
<b>Mines and Resources—</b>	
5 Mar. 25	<i>The National Parks Amendment Act, 1949.</i> The amendment redefines the boundaries of Banff and Elk Island National Parks and renames the New Brunswick National Park as Fundy National Park.
20 Apr. 30	<i>The Pipe Lines Act.</i> Enacts enabling legislation concerning construction, operation, regulation, etc., of gas and oil pipe lines.
<b>Trade and Commerce—</b>	
12 Mar. 30	<i>An Act to Amend the Game Export Act.</i> The amendment redefines the term "game officer", repeals the clause providing the oath of a game officer and rescinds his powers as justice of the peace or police constable.
<b>Transportation—</b>	
9 Mar. 30	<i>An Act Respecting the Appointment of Auditors for National Railways.</i> The Act authorizes, for the year 1949, the appointment of independent auditors to make a continuous audit of the National Railways.
<b>Welfare—</b>	
17 Apr. 30	<i>An Act to Amend The Family Allowances Act, 1944.</i> The amendment reduces the residence requirements, for child recipients of benefits under the Act, from three years to one year and repeals the proviso reducing the amounts payable in respect of a fifth or subsequent child.
19 Apr. 30	<i>An Act to Amend the Old Age Pensions Act.</i> This amendment extends from \$30 to \$40 the limits within which the Federal Government can make contribution of 75 p.c. to the provinces for Old Age Pensions.
<b>Miscellaneous—</b>	
3 Mar. 25	<i>An Act to Amend The Continuation of Transitional Measures Act, 1947.</i> The amendment provides for the date of expiration of the Act and restricts the powers of the War-time Prices and Trade Board.
11 Mar. 30	<i>An Act to Repeal the Cullers Act.</i> Legislation respecting the culling and measuring of lumber in the Provinces of Ontario and Quebec is repealed.

**Statutory Holidays, 1950**

New Year's Day.....	Jan. 1	Dominion Day.....	July 1
Good Friday.....	Apr. 7	Labour Day.....	Sept. 4
Easter Monday.....	Apr. 10	Thanksgiving Day.....	When proclaimed <sup>1</sup>
Victoria Day.....	May 24	Remembrance Day.....	Nov. 11
King's Birthday.....	June 5	Christmas Day.....	Dec. 25

<sup>1</sup> Oct. 10, in 1949.

## APPENDIX I

### Chronology

*(In continuance of the Chronology at pp. 75-82 of this volume.)*

1949. Sept. 7-12, Financial and economic conference of representatives of the United Kingdom, the United States and Canada held at Washington, D.C., to examine trade and financial relationships between the Sterling Area and the Dollar Area; Hon. D. C. Abbott represented Canada. Sept. 15, First Session of the 21st Parliament of Canada opened—the first Parliament at which Newfoundland was represented. Sept. 17, First meeting of the Council established by the North Atlantic Treaty convened at Washington, D.C.; Hon. L. B. Pearson represented Canada. S.S. *Noronic* burned at Toronto with heavy loss of life. Sept. 18, Sir Stafford Cripps, Chancellor of the Exchequer of the United Kingdom, announced devaluation of the pound sterling from \$4.03 to \$2.80. South Africa, Australia, New Zealand, India, Ireland, Norway, Denmark, Egypt and Israel also devalued their currencies. Sept. 19, Hon. D. C. Abbott announced devaluation of Canadian dollar by 10 p.c. Sept. 20, Fourth Session of the General Assembly of the United Nations convened at Flushing Meadows, N.Y.; Hon. L. B. Pearson elected chairman of the Political Committee. Sept. 21, End of military government in Germany. Sept. 22, Dominion Transport Board sanctioned increase in railway freight rates. Sept. 30, Berlin airlift ended officially at midnight. Oct. 23-26, Visit to Ottawa of Pandit Jawaharlal Nehru, Prime Minister of India. Nov. 21, Kellock Report on the circumstances attending the loss of the S.S. *Noronic* tabled in the House of Commons. Dec. 10, An Act to Amend the Supreme Court Act, giving final authority in judicial matters to the Supreme Court of Canada, received Royal Assent. The Act came into force on proclamation, Dec. 23, 1949. Fourth General Assembly

of the United Nations, held at Flushing Meadows, N.Y., ended. Prorogation of the First Session of the 21st Parliament, Dec. 12, Mrs. Nancy Hodges named Speaker of the British Columbia Legislature, the first woman to hold the office of Speaker in a Commonwealth legislature. Dec. 16, Royal Assent given to Bill amending the British North America Act by vesting in the Parliament of Canada, without reference to the British Parliament, the power to make amendments to the constitution of Canada in federal matters. The Canadian statute came into force on proclamation, Dec. 31, 1949. Dec. 27, The Government of Canada gave full recognition to the United States of Indonesia when the republic of Jacarta attained self-government.

1950. Jan. 9-14, Commonwealth Conference on Foreign Affairs met at Colombo, Ceylon. Hon. L. B. Pearson, Secretary of State for External Affairs, was head of the Canadian delegation. Jan. 10-12, Federal-Provincial Conference held at Ottawa: Premiers of the ten provinces met with Prime Minister St. Laurent to discuss the question of constitutional amendments. A continuing committee of provincial attorneys-general was appointed to work out a formula for procedure in regard to future constitutional amendments. Jan. 26, John James Bowlen, Calgary, Alta., appointed Lieutenant-Governor of Alberta. Feb. 16, Second Session of the 21st Parliament of Canada, opened. Mar. 1 Supreme Court of Canada ruled that Federal Government controls were valid and that the decision remains with Parliament as to when the 'emergency' no longer exists. Railways awarded an increase in freight rates by the Board of Transport Commission.



## APPENDIX II

### The Ministry

#### 1.—Members of the Seventeenth Ministry as at Feb. 15, 1950

(According to precedence of Ministers)

Office	Occupant	Date of Appointment <sup>1</sup>
Prime Minister and President of the Privy Council.....	Rt. Hon. LOUIS STEPHEN ST. LAURENT, K.C.	{Dec. 10, 1941 Nov. 15, 1948
Minister of Trade and Commerce.....	Rt. Hon. CLARENCE DECATUR HOWE.....	{Oct. 23, 1935 Jan. 19, 1948
Minister of Agriculture.....	Rt. Hon. JAMES GARFIELD GARDINER.....	Oct. 28, 1935
Member of the Administration and Minister without Portfolio.....	Hon. JAMES ANGUS MACKINNON.....	{Jan. 23, 1939 Apr. 1, 1949
Minister of Labour.....	Hon. HUMPHREY MITCHELL.....	Dec. 15, 1941
Minister of Public Works.....	Hon. ALPHONSE FOURNIER, K.C.....	Oct. 6, 1942
Minister of National Defence.....	Hon. BROOKE CLAXTON, K.C.....	{Oct. 13, 1944 Dec. 12, 1946
Minister of Transport.....	Hon. LIONEL CHEVRIER, K.C.....	Apr. 18, 1945
Minister of National Health and Welfare.....	Hon. PAUL JOSEPH JAMES MARTIN, K.C.....	{Apr. 18, 1945 Dec. 12, 1946
Minister of Finance.....	Hon. DOUGLAS CHARLES ABBOTT, K.C.....	{Apr. 18, 1945 Dec. 10, 1946
Minister of National Revenue and Minister of Mines and Technical Surveys.....	Hon. JAMES JOSEPH MCCANN, M.D.....	{Apr. 18, 1945 Jan. 18, 1950
Leader of the Government in the Senate.....	Hon. WISHART MCLEA ROBERTSON.....	Aug. 29, 1945
Minister of Veterans Affairs.....	Hon. MILTON FOWLER GREGG, V.C.....	{Sept. 2, 1947 Jan. 19, 1948
Minister of Fisheries.....	Hon. ROBERT WELLINGTON MAYHEW.....	June 11, 1948
Secretary of State for External Affairs.....	Hon. LESTER BOWLES PEARSON.....	Sept. 10, 1948
Minister of Justice and Attorney General.....	Hon. STUART SINCLAIR GARSON.....	Nov. 15, 1948
Minister of Resources and Development.....	Hon. ROBERT HENRY WINTERS.....	{Nov. 15, 1948 Jan. 18, 1950
Secretary of State of Canada.....	Hon. FREDERICK GORDON BRADLEY.....	Apr. 1, 1949
Solicitor General of Canada.....	Hon. HUGUES LAPOINTE.....	Aug. 24, 1949
Postmaster General.....	Hon. GABRIEL EDOUARD RINFRET.....	Aug. 24, 1949
Minister of Citizenship and Immigration.....	Hon. WALTER EDWARD HARRIS.....	Jan. 18, 1950

<sup>1</sup> Where two dates are shown, the first indicates the date of first appointment as a Minister of the Crown and the second the date of appointment to the portfolio held at present.

**Parliamentary Assistants to Ministers as at Feb. 15, 1950.**—G. Belzile—Minister of Finance; J.-A. Blanchette—Minister of National Defence; P.-E. Côté—Minister of Labour; J. W. MacNaught—Minister of Fisheries; R. Maybank—Minister of Mines and Technical Surveys; R. McCubbin—Minister of Agriculture; G. J. McIlraith—Minister of Trade and Commerce; L. A. Mutch—Minister of Veterans Affairs; G. Prudham—Minister of Resources and Development; J. Sinclair—Minister of Finance.

## The House of Commons

### 2.—By-Elections from the Date of the General Election, June 27, 1949, to Feb. 15, 1950

Province and Electoral District	Date of Election	Voters on List	Candi- dates	Votes Polled	Name of New Member	Ratio of Votes Polled to Voters	Successful Candidates	
							Votes Cast for	Ratio to Total Votes Polled
		No.	No.	No.		p. c.	No.	p. c.
<b>New Brunswick—</b> Restigouche- Madawaska.....	Oct. 24, 1949	33,571	2	17,516	P. L. DUBÉ.....	52·18	10,124	57·80
<b>Quebec—</b> Gatineau.....	Oct. 24, 1949	19,919	3	9,340	J. C. NADON....	46·89	5,438	58·22
Kamouraska.....	Oct. 24, 1949	17,845	2	11,365	A. MASSÉ.....	63·69	6,033	53·08
<i>Island of Montreal and Ile Jesus—</i> Jacques-Cartier....	Oct. 24, 1949	35,710	2	16,366	E. LEDUC.....	45·83	9,327	56·99
Laurier.....	Oct. 24, 1949	35,933	2	11,113	J. E. LE- FRANÇOIS.....	30·93	10,164	91·46
Mercier.....	Oct. 24, 1949	41,584	3	12,658	M. MONETTE....	30·44	9,389	74·17
<b>Ontario—</b> City of Toronto— Greenwood.....	Oct. 24, 1949	40,908	4	23,535	J. M. MAC- DONNELL.....	57·53	9,399	39·94
<b>British Columbia—</b> New Westminster....	Oct. 24, 1949	47,759	5	24,871	W. M. MOTT....	52·08	8,727	35·09

## APPENDIX III

### Foreign Trade of Canada, 1948 and 1949

Chapter XXII of this volume includes foreign trade figures for the calendar year 1948. However, at the time of going to press it is possible to give monthly figures up to the end of 1949; these are shown in the following table together with monthly data for 1948 which are given for purposes of comparison.

It will be noted that domestic exports showed an increase in January, April, June and August of 1949 as compared with the same months in 1948; a decrease was shown in each of the other months. Imports showed an increase in each month over the previous year except in September, October and December.

#### 1.—Trade of Canada (Excluding Gold), by Months, 1948 and 1949

NOTE.—Monthly figures from 1940 to 1947 are given in corresponding tables in previous Year Books beginning with the 1943-44 edition.

Month	Imports		Domestic Exports		Total Trade	
	1948	1949	1948	1949	1948	1949
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
January.....	206,077	223,786	235,384	237,030	445,137	462,799
February.....	182,167	205,976	208,269	204,994	392,482	413,112
March.....	197,051	235,946	228,369	216,787	427,956	454,952
April.....	226,690	242,698	212,337	237,792	441,779	482,974
May.....	225,093	250,461	282,283	272,948	512,620	526,063
June.....	232,997	250,509	233,476	255,065	468,967	507,905
July.....	225,099	230,889	250,864	241,309	478,569	474,578
August.....	206,490	212,092	224,143	251,659	433,019	466,054
September.....	221,678	221,569	283,025	228,441	507,712	452,490
October.....	243,438	234,267	306,964	269,108	552,911	505,956
November.....	238,172	239,609	293,905	292,278	534,508	535,085
December.....	231,993	213,405	316,419	285,550	551,314	501,692
<b>Totals.....</b>	<b>2,636,945</b>	<b>2,761,207</b>	<b>3,075,438</b>	<b>2,992,961</b>	<b>5,746,974</b>	<b>5,783,660</b>



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